

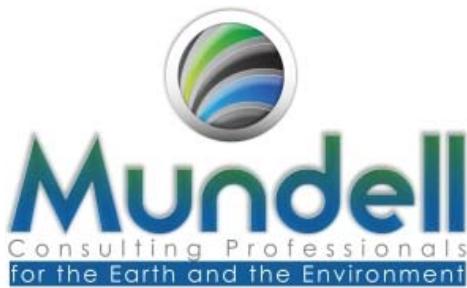
## QUARTERLY MONITORING PROGRESS REPORT, 3<sup>RD</sup> QUARTER, 2012

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MICHIGAN PLAZA  
3801-3823 WEST MICHIGAN STREET  
INDIANAPOLIS, INDIANA 46222  
IDEM INCIDENT NO.: 0000198  
IDEM VRP NO.: 6061202  
MUNDELL PROJECT NO.: M01046  
JANUARY 21, 2013



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January 21, 2013

Mr. Corey Webb  
Voluntary Remediation Program  
Office of Land Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204

Re: **Quarterly Monitoring Progress Report – 3<sup>rd</sup> Quarter 2012**  
Michigan Plaza  
3801-3823 West Michigan Street  
Indianapolis, Indiana 46222  
IDEM Incident # 0000198  
IDEM VRP # 6061202  
MUNDELL Project No. M01046

Dear Mr. Webb:

This *Quarterly Monitoring Progress Report* is being submitted to the Indiana Department of Environmental Management (IDEM) by Mundell & Associates, Inc. (MUNDELL), on behalf of AIMCO Michigan Meadows Holdings, LLC (AMMH), to summarize remediation activities and quarterly monitoring performed between July 30 and August 8, 2012. The following sections provide detailed discussions of the results of this work. All activities were completed on schedule.

## **1.0 SUMMARY OF MONITORING ACTIVITIES**

### **1.1 Groundwater Monitoring Network Sampling**

Between July 31 and August 8, 2012, quarterly groundwater sampling of twenty-eight (28) monitoring wells established with IDEM, twelve (12) additional MUNDELL monitoring wells on the Floral Park Cemetery property, and four (4) ENVIRON monitoring wells was completed. The following constitute this quarterly groundwater monitoring network:

A. *MUNDELL monitoring wells (40 total):*

*Michigan Plaza and Vicinity (15):*

MMW-P-01, MMW-P-02, MMW-P-03S, MMW-P-03D, MMW-P-04, MMW-P-05, MMW-P-06, MMW-P-07, MMW-P-08, MMW-P-09S, MMW-P-09D, MMW-P-10S, MMW-P-10D, MMW-P-12S, and MMW-P-12D.

*Maple Creek Village (formerly Michigan Meadows Apartments) (13):*

MMW-1S, MMW-4D, MMW-6D, MMW-8S, MMW-9S, MMW-10S, MMW-11S, MMW-11D, MMW-12S, MMW-13D, MMW-14D, MW-15S, and MW-15D.

*Floral Park Cemetery (12):*

MMW-C-01, MMW-C-02S, MMW-C-02D, MMW-C-16S, MMW-C-16D, MMW-C-17D, MMW-P-11S, MMW-P-11DR, MMW-P-13S, MMW-P-13D, MMW-P-14S, and MMW-P-14D.

B. *ENVIRON monitoring wells (4):*

MW-167D, MW-168D, MW-170S, MW-170D.

MUNDELL also measured static groundwater elevations via an electric oil/water interface probe from the above-listed monitoring well network on July 30, 2012. Additional wells gauged during this sampling event consist of:

*ENVIRON monitoring wells:*

MW-166S/D, MW-167S/D, MW-168S/D, MW-169S/D, MW-170S/D, MW-171S/D, MW-174S/D, MW-175S/D.

*Little Eagle Creek Stream gauge Locations:*

SG-1.

*US EPA wells:*

MW-WES-01A, MW-WES-01B, MW-WES-01C, MW-WES-02A, MW-WES-02B, MW-WES-02C, MW-WES-03A, MW-WES-03B, MW-WES-04A, MW-WES-04B, MW-WES-05A, MW-WES-05B, MW-WES-05C.

Monitoring well gauging, survey and construction data are provided in **Table 1**. A site map depicting monitoring well locations is provided as **Figure 1**, and separate potentiometric surface maps for wells screened within the shallow portion and deeper portion of the upper sand and gravel aquifer are depicted on **Figures 2a** and **b**, and **Figures 3a** and **b**, respectively.

The monitoring wells were sampled utilizing both dedicated and portable bladder pumps for uniform low-flow purging and sample collection. The Troll 9500 multi-parameter meter (used inline with the bladder pumps) logs geochemical parameters (temperature, pH, dissolved oxygen, conductivity and oxidation-reduction potential), which help remove a minimal but sufficient amount of water (indicated by stabilization of geochemical parameters) to sample the well. The Troll helps assess the geochemical parameters to determine if conditions naturally conducive to natural attenuation exist in the aquifer. Excess purge water was transported to 55-gallon drums located at the Michigan Plaza property for subsequent proper off-site disposal. In accordance with IDEM guidelines, the contents in each drum were then identified with a label describing them as non-hazardous materials.

As agreed in the October 29<sup>th</sup>, 2008 meeting with IDEM and detailed in the *Remediation Work Plan Addendum* dated November 2008, groundwater samples were submitted to Pace Analytical Laboratories (Pace) in Indianapolis, Indiana, for the shorter list of Volatile Organic Compound (VOC) analysis utilizing U.S. EPA SW-846 Method 8260, along with appropriate duplicate (DUP), matrix spike (MS) and matrix spike duplicate (MSD) samples. Groundwater samples were transferred into three 40-milliliter glass sample vials containing the preservative hydrochloric acid (HCl). Groundwater sample vials were sealed in plastic bags and placed in a cooler containing ice and delivered to Pace using appropriate chain-of-custody protocol for laboratory tests. Pace laboratory certificates of analysis for the groundwater samples analyzed are presented in **Appendix A**. As will be discussed, the data indicate that anaerobic conditions which support the reductive dechlorination process currently exist in the aquifer.

Additional aquifer parameters, consisting of nitrate/nitrite (EPA 353.2), sulfate (ASTM D512-90,02), ferrous iron (field test - 1,10 Phenanthroline), total organic carbon (SM 5310C), methane (AM20GAX), ethane (AM20GAX) and ethane (AM20GAX) were analyzed to evaluate indicator compound breakdown and redox-sensitivity. In addition, volatile fatty acids (VFA) were tested to evaluate substrate distribution and lifetime duration of the substrate product. These samples were collected in the previously selected indicator well locations representative of each plume to monitor the presence of residual CAP 18 ME™ in the aquifer and to provide additional monitoring of aquifer conditions. These identified locations consist of:

**Source Area A:** MMW-P-02, MMW-P-03S, MMW-P-03D, MMW-P-11S, MMW-P-11DR, and MMW-C-01;

**Source Area B:** MMW-P-01, MMW-P-05, MMW-P-06, MMW-P-07, MMW-P-08, MMW-P-10S, MMW-P-10D, MMW-8S, MMW-P-12S, and MMW-P-12D;

**Source Area C:** MMW-1S, MMW-9S, and MMW-10S.

Please note that **Source Area A** monitoring well MMW-P-04 contained insufficient water to collect MNA parameters during the third quarter 2012 sampling event.

## 2.0 MONITORING RESULTS

### 2.1 Groundwater Flow

During the preparation of the potentiometric surface maps for the Site, static water level data collected in the vicinity of Holt Road and Michigan Street - shallow zone ENVIRON monitoring well MW-174S, and deep zone ENVIRON well MW-174D and US EPA well MW-WES-5C - continue to indicate a localized groundwater depression relative to nearby static water level readings.

Previously, MUNDELL has contacted ENVIRON personnel to request access to their MW-174 well set to complete an independent re-survey, in order to verify that the top of casing (TOC) elevations were accurate. The resurvey of the ground surface completed in November 2012, along with previous measurements of offset between TOC and ground surface (conducted with ENVIRON personnel present) determined the ENVIRON TOC elevations appear to be accurate.

A review of the potentiometric surface map for the wells screened within the shallow portion of the surficial aquifer zone (**Figure 2a**) shows that direction of groundwater flow in the vicinity of **Source Areas A, B and C** is from the north-northwest to the south-southeast. There is no component of groundwater flow towards the residential area west of Holt Road. This flow pattern exists even if the suspect static water elevation from MW-174S included (**Figure 2b**).

A review of the potentiometric surface map for the wells screened within the deeper portion of the surficial aquifer (**Figure 3a**) indicates a similar groundwater flow direction, *i.e.*, north-northwest to south-southeast in the vicinity of Source Areas A, B and C. As with the shallow portion of the surficial aquifer, the direction of flow in the deeper portion remains the same even if the water levels in ENVIRON monitoring well MW-174D and EPA well MW-WES-05c are considered (**Figure 3b**). Again, there is no component of groundwater flow towards the residential area west of Holt Road.

### 2.2 Groundwater Analytical Results

Groundwater analytical testing results for this quarter are summarized in **Table 2** and presented on **Figure 4** (shallow portion of aquifer) and **Figure 5** (deeper portion of aquifer), the cumulative historic groundwater results are included in **Table 3**, and the cumulative groundwater analytical data for enhanced anaerobic bioremediation are included in **Table 4**. The historical indicator compounds trends in groundwater are

presented in **Figure 6**. A summary of exceedances within the shallow monitoring well network and deep monitoring well network follows.

### 2.2.1 Shallow Monitoring Well Network Summary

#### **PCE**

PCE concentrations were reported in exceedance of the associated IDEM RISC Industrial Default Closure Level (IDCL) in the following monitoring wells:

*Maple Creek Village Apartments:* MMW-1S.

*Floral Park Cemetery:* MMW-P-11S.

PCE was reported in exceedance of the IDEM RISC Residential Default Closure Level (RDCL) in the following monitoring wells:

*Maple Creek Village Apartments:* MMW-8S.

*Michigan Plaza and Vicinity:* MMW-P-01 and MMW-P-02.

#### **TCE**

TCE concentrations were reported in exceedance of the associated IDEM RISC RDCL in the following monitoring wells:

*Maple Creek Village Apartments:* MMW-1S.

*Michigan Plaza and Vicinity:* MMW-P-01.

#### **Cis-1,2 DCE**

Cis-1,2 DCE concentrations were reported in exceedance of the IDEM RISC IDCL in the following monitoring wells:

*Michigan Plaza and Vicinity:* MMW-P-06.

Cis-1,2 DCE concentrations were reported in exceedance of the IDEM RISC RDCL in the following monitoring wells:

*Maple Creek Village Apartments:* MMW-9S and MMW-10S.

*Michigan Plaza and Vicinity:* MMW-P-01, MMW-P-08, and MMW-P-12S

#### **VC**

VC concentrations were reported in exceedance of the IDEM RISC IDCL in the following monitoring wells:

*Maple Creek Village Apartments:* MMW-1S, MMW-8S, MMW-9S, and

MMW-10S.

*Michigan Plaza and Vicinity:*

MMW-P-01, MMW-P-02, MMW-P-03S, MMW-P-05, MMW-P-06, MMW-P-07, MMW-P-08, MMW-P-10S and MMW-P-12S.

*Floral Park Cemetery:*

MMW-C-01, MMW-C-11S, and MMW-C-13S.

## 2.2.2 Deep Monitoring Well Network Summary

### **PCE**

PCE was not identified at concentrations in exceedance of the associated IDEM RISC IDCL or RDCL within deep wells across the study area.

### **TCE**

TCE was not identified at concentrations in exceedance of the associated IDEM RISC IDCL or RDCL within deep wells across the study area.

### **Cis-1,2 DCE**

*Cis-1,2 DCE* concentrations were reported in exceedance of the IDEM RISC RDCL in the following monitoring wells:

*Maple Creek Village Apartments:* MMW-4D, MMW-11D, MMW-13D, and MMW-14D.

*Michigan Plaza and Vicinity:* MMW-P-12D.

*ENVIRON monitoring wells:* MW-167D.

### **VC**

VC concentrations were reported in exceedance of the IDEM RISC IDCL in the following monitoring wells:

*Maple Creek Village Apartments:* MMW-4D, MMW-6D, MMW-13D, and MMW-14D.

*Michigan Plaza and Vicinity:* MMW-P-03D, MMW-P-09D, MMW-P-10D, and MMW-P-12D.

*Floral Park Cemetery:* MMW-C-02D, MMW-C-16D, MMW-P-11DR, MMW-P-13D, and MMW-P-14D.

*ENVIRON monitoring wells:* MW-167D, MW-168D, and MW-170D.

VC concentrations were reported in exceedance of the IDEM RISC RDCL in the following monitoring wells:

*Maple Creek Village Apartments:* MMW-11D, MMW-15D.

*Floral Park Cemetery:* MMW-C-17D.

The deep monitoring wells MMW-4D, MMW-11D, and MMW-13D located at the Maple Creek Village Apartment Complex exhibited cis-1,2-DCE groundwater concentrations exceeding the RISC RDCL. These wells also either currently exhibit or have historically exhibited vinyl chloride exceedances above IDCLs this quarter. Since these wells have been purposefully located hydraulically upgradient of all three **Chemical Source Areas**, the impacts observed in these wells demonstrate groundwater impacts that are attributable to other upgradient, off-site sources and not to Michigan Plaza.

The locations of all three **Chemical Source Areas** are presented on **Figure 1**. As seen on **Figure 5** the indicator compound concentrations at the deep, upgradient wells MMW-4D, MMW-11D, and MMW-13D can be considered as “background levels” defined as the concentration of contaminants from the Genuine source coming into the deeper aquifer in this area.

Based on a review of the ENVIRON *Remedial Progress Report* dated June 2012, which summarizes March 2012 sampling activities for Genuine Parts associated with VRP Site No. 6991004, groundwater sampling has identified the following RISC IDCL exceedances:

- TCE: MW-10-1R, MW-148R; MW-152, MW-153, MW-156, MW-163, MW-173;
- Cis-1,2 DCE: MW-166D; and
- vinyl chloride MW-165D, MW-166D.

The exceedances identified in the ENVIRON monitoring well network are further reinforced by exceedances detected along the northern property boundary this quarter from MUNDELL well MMW-4D. Annual sampling at MUNDELL well MMW-5D also has confirmed the elevated concentrations that have migrated onto the apartment complex over the years (see **Figure 6**).

## 2.3 In-Situ Bioremediation Progress

Based upon:

- 1) The extent and severity of the indicator compound concentrations and trends;
- 2) Site-specific operational constraints and uses;
- 3) Geochemical and physical characteristics of the aquifer; and
- 4) Economic factors;

In-situ bioremediation with CAP18™ and CAP 18 ME™, followed by Monitored Natural Attenuation (MNA) is the appropriate remediation technology being used for the Site for treating groundwater, as detailed in the *RWP*. The initial CAP 18™ injection was performed in each of the three source areas in August 2007 using a direct push Geoprobe system. Locations and spacing of the injection points were designed to address the sewer line related **Chemical Source Areas** and provide injection locations in each **Chemical Source Area**. The anticipated downgradient migration of the initial CAP 18 ME™ was expected to remediate the most significant groundwater impacts. A booster CAP 18 ME™ injection was performed in February 2009 to aggressively treat some areas where the chemical concentrations began to stabilize or were decreasing at a slow rate. During this quarter, no additional CAP 18 ME™ injections have been performed. A *Revised Work Plan for Third Round of CAP 18 ME™ Injections* dated July 22, 2011, was approved by IDEM on August 22, 2011. Subsequent to the submittal of the report, however, data collected with the additional delineation in the area identified additional pockets of source material, therefore requiring the footprint of injection to be expanded. This third injection event was delayed by IDEM pending receipt and review of results from the 2011 delineation and investigation activities in the area. On May 2, 2012, MUNDELL submitted a revised injection plan that adds a few additional injection locations. Currently, MUNDELL is awaiting IDEM's review and approval of investigation results, and desires to proceed with the third CAP 18 ME™ injection event at the Site as soon as possible.

The cumulative groundwater analytical data for enhanced anaerobic bioremediation are included in **Table 4**. Groundwater analytical results are attached in **Appendix A**.

### **Indicator Chemical Trends**

A group of monitoring wells from the sampling network is utilized to monitor dissolved indicator compound concentration trends over time at various locations within the heart of the three **Chemical Source Areas**. Graphs of historical PCE, TCE, cis-1,2-DCE and vinyl chloride concentrations are presented in **Figure 6** for the following monitoring wells:

**Source Area A:** MMW-P-02, MMW-P-03S, MMW-P-03D, MMW-P-04, MMW-P-11S, MMW-P-11DR, and MMW-C-01;

**Source Area B:** MMW-P-01, MMW-P-05, MMW-P-06, MMW-P-07, MMW-P-08, MMW-P-10S, MMW-P-10D, MMW-8S; MMW-P-12S, and MMW-P-12D;

**Source Area C:** MMW-1S, MMW-9S, and MMW-10S.

**Figures 6** and **7** illustrate the changes in the chlorinated solvent concentrations demonstrating reductive dechlorination as a result of the CAP 18 ME™ remediation implementation. To illustrate the effect of the CAP 18 ME™ injections on dissolved chlorinated concentrations, injection dates are included on the graphs.

### 2.3.1 Source Area A

#### PCE

PCE was detected above the RDCL in MMW-P-02. PCE was not detected above the laboratory reporting limit in indicator wells MMW-P-03S, MW-P-03D, and MMW-P-04 located near **Source Area A**. The data associated with well cluster MMW-P-11S and MMW-P-11DR, which has been added as an indicator well set to **Source Area A**, shows that PCE concentrations in exceedance of the RISC IDCL are present southwest of the strip mall property in the shallow zone. To the southeast of the source area, PCE concentrations have declined steadily since the initial August 2007 CAP 18™ injections and the following February 2009 CAP 18 ME™ injections.

#### TCE

TCE was not detected above the laboratory reporting limit in **Source Area A** indicator wells.

#### Cis-1,2-DCE

Cis-1,2-DCE concentrations increased in the shallow saturated zone immediately downgradient of **Source Area A** at MMW-P-04, MMW-P-11S and MMW-11-DR, while concentrations decreased in MMW-P-02, MMW-P-03S, and MMW-C-01. It was not detected in the deep well MMW-P-03D.

#### VC

During the 3<sup>rd</sup> quarter 2012 sampling event, VC concentrations increased in **Source Area A** shallow indicator wells MMW-P-03S, MMW-P-03D, and MMW-P-11S, suggestive of continued dechlorination at this location. VC levels have decreased in MMW-P-02, MMW-P-04, and MMW-C-01. The VC concentration in MMW-11-DR remained unchanged from the previous quarter.

MNA Indicator parameters also indicate reducing conditions have been established over the years with associated sulfate reduction, increased ethene generation, and apparent methanogenesis (MMW-P-03S, MMW-P-03D).

Generation of both cis-1,2-DCE and vinyl chloride as byproducts of PCE reductive de-chlorination appears to have slowed near **Source Area A** over the last several quarters.

### 2.3.2 Source Area B

#### PCE

PCE concentrations decreased but remain at levels above the RISC RDCL in the vicinity of MMW-P-01, located immediately downgradient of sewer line source areas identified during soil investigation activities completed during 2005. PCE was also detected in MMW-8S at a concentration below the RISC RDCL. PCE was not detected in any of the other wells in **Source Area B**, although elevated reporting limits were required for PCE in MMW-P-06 associated with elevated concentrations of cis-1,2-DCE and VC that were detected in the sample.

#### TCE

TCE concentrations decreased but remain at levels above the RDCL at MMW-P-01. TCE was not detected in any of the other wells in **Source Area B**.

#### Cis-1,2-DCE

Elevated cis-1,2-DCE levels in exceedance of the RISC IDCL are identified in MMW-P-06. Elevated cis-1,2-DCE levels in exceedance of the RISC RDCL are identified in MMW-P-08 and the MMW-P-12S/D well pair. Levels decreased in MMW-P-01 but continue to exceed the RISC IDCL. Cis-1,2-DCE levels increased in MMW-P-07 and decreased in MMW-8S while both concentrations remained below the RISC RDCL.

#### VC

Elevated VC levels in exceedance of the RISC IDCL are identified in each indicator well. Increasing trends are noted in MMW-8S, MMW-P-05, MMW-P-07, MMW-P-08, MMW-P-10S, MMW-P-10D, and MMW-P-12S. Decreasing trends are noted in MMW-P-01, MMW-P-06, and MMW-P-12D.

Indicator compound concentration trends in the vicinity of **Source Area B** indicate that in certain areas (e.g., MMW-P-07) reductive dechlorination processes have consumed PCE and TCE while generating daughter products (cis-1,2 DCE, VC) in the saturated zone. MNA Indicator parameters also indicate

reducing conditions have been established over the years and sulfate reduction and methanogenesis are occurring (e.g., MMW-8S). However, there are some areas where stagnation appears to be occurring (e.g., in MMW-P-01, MMW-P-05, and MMW-P-06).

### 2.3.3 Source Area C

#### PCE

PCE concentration increased slightly in indicator well MMW-1S and remains above the IDCL. The concentration in MMW-10S decreased and was below the RDCL. Monitoring well locations near **Source Area C** continue to indicate downgradient migration of CAP18 ME<sup>TM</sup> and slowing of previously inferred reductive dechlorination processes.

#### TCE

The TCE concentration at MMW-1S remained in exceedance of the RISC RDCL and has demonstrated an increasing trend. The TCE concentration at MMW-10S decreased and was below the laboratory reporting limit during the 3<sup>rd</sup> quarter, 2012 event.

#### Cis-1,2-DCE

While cis-1,2-DCE were reported at concentrations above the RDCL in MMW-9S and MMW-10S, a declining trend has been observed over the past several quarters. It continues not to be detected above the laboratory reporting limit in MMW-1S.

#### VC

Rates of VC generation as byproducts of enhanced reductive dechlorination appear to have slowed in **Source Area C**. VC concentrations at **Source Area C** indicator well locations MMW-9S and MMW-1S decreased but increased somewhat at MMW-10S. Concentrations remain above the IDCLs.

MNA Indicator parameters also indicate reducing conditions have been established over the years with associated sulfate reduction, ethene generation, and apparent methanogenesis. (e.g., see MMW-9S and MMW-10S). However, rates of ethene generation appear to be slowing. Also noted are decreasing levels of lactic acid in these wells, suggesting that the fermented material in the area provided by the carbon substrate is decreasing, which in turn suggests

available hydrogen for reductive dechlorination processes to continue may be decreasing.

The remaining PCE and TCE concentrations observed near **Source Area C**, and the decreasing rates of daughter product generation observed in the vicinity during 2011 and 2012 indicate the need for a third CAP18 ME<sup>TM</sup> injection event. This booster injection event has previously been approved by IDEM. However, a modified injection plan has been submitted under separate cover for IDEM review and is currently awaiting approval.

In conclusion, because reductive dechlorination processes appear to have slowed over the last several quarters, as evidenced by slightly rebounding PCE and TCE concentrations and reduced generation of breakdown products (cis-1,2-DCE and vinyl chloride) in selected locations, additional CAP18 ME<sup>TM</sup> injections in **Source Areas A, B** and **C** have previously been approved by IDEM. In May 2012, MUNDELL submitted a revised injection plan that adds a few more injection locations and is currently waiting for IDEM approval to proceed. After approval by IDEM, MUNDELL will proceed with the third CAP 18 ME<sup>TM</sup> injection event at the Site.

The cumulative groundwater analytical data for enhanced anaerobic bioremediation are included in **Table 4**. Groundwater analytical results are attached in **Appendix A**.

## 2.4 Indoor Air Mitigation Systems Performance

Four sub-floor slab depressurization units were installed by *Air Quality Control* (AQC) under the oversight of MUNDELL in September 2006. Three additional sub-floor slab depressurization units were installed by AQC under the oversight of MUNDELL on March 19 and 26, 2008.

Unit/blowers were installed in the following spaces at Michigan Plaza: 1) the Village Pantry (B1); 2) the former Tire Shop space (B2); 3) the Arca de Salvacion (B3); and 4) the laundromat (Michigan Plaza Family Laundry) (B4). The systems installed at the Maple Creek Village Apartments are: Building No. 1, Basement Apartment 101 (B5); Building No. 6, Basement Apartment 602 (B6); and Building No. 10, Basement Apartment 1001 (B7). The system locations are illustrated on **Figure 8**.

Since the time of installation, system stack air samples were collected weekly during October 2006, followed by bi-weekly sampling during November and December 2006, monthly throughout 4<sup>th</sup> quarter, 2006, and then on a quarterly basis thereafter. PID readings have also been concurrently measured in each of the stacks. The historical PCE concentration trends and cumulative pounds of PCE and total contaminants removed by each of the systems (B1 through B7) are summarized in **Figures 9 through 17**.

As of the end of the 3<sup>rd</sup> quarter of 2012, approximately 25.42 pounds of total chlorinated solvents, including 16.83 pounds of PCE, have been removed at the *Maple Creek Village Apartments* property (subfloor depressurization systems B5, B6 and B7); and approximately 106.61 pounds of total chlorinated solvents, including 96.81 pounds of PCE, have been removed at the *Michigan Plaza* property (subfloor depressurization systems B1, B2, B3 and B4). The associated calculations are provided in **Appendix B**. A concentration of half the PQL (practical quantitation limit) is assumed for the indicator compounds demonstrating concentrations below the laboratory PQL, with the exception of vinyl chloride where an average concentration of 0.015 parts per million vapor (PPMV) (derived from the J flag values for vinyl chloride concentrations below PQL) is used for calculation purposes.

Overall, decreases in PCE concentrations have been noted in all mitigation systems going back to at least May 2009. PCE concentrations in mitigation systems B1, B3, and B4 have decreased by an order of magnitude since air monitoring was initiated for each respective system. Air mitigation systems B2, B5, and B6 have also shown generally declining PCE concentrations, with reduction of PCE concentrations by approximately 500 to 3000 ug/m<sup>3</sup> since air monitoring was initiated.

### 3.0 FUTURE ACTIONS

MUNDELL will continue to conduct groundwater monitoring at the Site and provide results to IDEM on a quarterly basis. Given the data reported above, MUNDELL recommends that the previously proposed CAP18 injections proceed as soon as possible. MUNDELL is concerned that further delay of this third injection event will prolong the time to complete cleanup.

In addition, MUNDELL remains concerned about the Genuine Parts contamination that continues to migrate onto the Site. As set forth in Section 2.2.2, multiple monitoring wells upgradient of the Maple Creek Village and Michigan Plaza properties show VOC concentrations at levels in excess of residential and commercial standards. Based on a review of the March 2012 ENVIRON report, VRP Tier II cleanup levels were established at the Genuine Parts site based upon the presumption that cleanup to Residential Cleanup Goals (RCGs) was not likely because of the presence of off-site sources (interpreted to mean source areas associated with Michigan Plaza). MUNDELL points out that source areas associated with Michigan Plaza are located well to the south of the property boundary of the Genuine Parts facility. Accordingly, there appears to be no reason why Genuine Parts could not achieve RCGs at the aforementioned wells. Nevertheless, if IDEM is not going to require a more thorough remedial response for the remaining groundwater impacts migrating from Genuine Parts onto the Maple Creek Village property, concentrations coming onto the Maple Creek Village and passing into the remedial area for Michigan Plaza (e.g., in upgradient wells MMW-11D, MMW-13D,

MMW-14D, MW-165D, MW-166D, MMW-4D and MMW-5D) will be used as ‘background concentrations’ that will aid in distinguishing between the Michigan Plaza source impacts and the Genuine Site impacts, and ultimately be used to support the setting of target cleanup goals for the deeper portion of the surficial aquifer at the Michigan Plaza site.

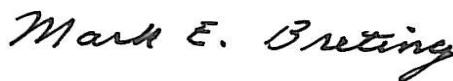
We appreciate the opportunity to update IDEM on the progress of remedial activities and monitoring at the Site. If you have any questions, please do not hesitate to contact us at (317) 630-9060 or via email ([jmundell@MundellAssociates.com](mailto:jmundell@MundellAssociates.com); [breting@mundellassociates.com](mailto:breting@mundellassociates.com)).

Sincerely,

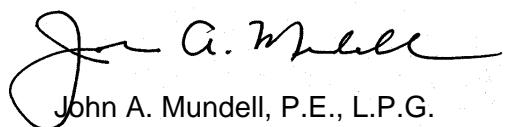
**MUNDELL & ASSOCIATES, INC.**



Matthew Bono  
Staff Environmental Scientist



Mark E. Breting, L.P.G.  
Senior Project Geologist



John A. Mundell, P.E., L.P.G.  
President/Senior Environmental Consultant

Attachments: Tables  
Figures  
Appendices

cc: Mr. Peter Cappel, AMMH

## **TABLES**

- |         |   |
|---------|---|
| Table 1 | Groundwater Level Measurements  |
| Table 2 | Monitoring Well Groundwater Analytical Results – 3 <sup>rd</sup> Quarter 2012 |
| Table 3 | Cumulative Monitoring Well Groundwater Analytical Results                     |
| Table 4 | Cumulative Groundwater Analytical Data for Enhanced Anaerobic Bioremediation  |

**Table 1**  
 Tabulated Water Level Measurements and Monitoring Well Construction Data  
 Quarter 3 - 2012  
 Michigan Plaza  
 3801-3823 West Michigan Street  
 Indianapolis, Indiana  
 MUNDELL Project No.: M01046

Monitoring Well	Date of Water Level	Top of Casing Elevation (feet MSL)	Total Depth (feet)	Screened Interval (feet)		Depth To Water (feet)	Groundwater Elevation (feet MSL)		
<b>Monitoring Wells (Plaza)</b>									
<i>Shallow Wells</i>									
MMW-P-01	7/30/2012	715.26	28	18.00	-	28.00	20.06		
MMW-P-02	7/30/2012	716.09	30	20.00	-	30.00	21.11		
MMW-P-03S	7/30/2012	715.95	28	18.00	-	28.00	20.99		
MMW-P-04	7/30/2012	716.04	28	18.00	-	28.00	20.88		
MMW-P-05	7/30/2012	715.55	28	18.00	-	28.00	20.42		
MMW-P-06	7/30/2012	716.14	28	18.00	-	28.00	21.01		
MMW-P-07	7/30/2012	714.90	28	18.00	-	28.00	19.41		
MMW-P-08	7/30/2012	714.53	28	18.00	-	28.00	18.86		
MMW-P-09S	7/30/2012	714.80	28	18.00	-	28.00	20.67		
MMW-P-10S	7/30/2012	714.35	28	18.00	-	28.00	18.81		
MMW-P-12S	7/30/2012	715.83	26	16.00	-	26.00	19.54		
<i>Deep Wells</i>									
MMW-P-03D	7/30/2012	716.02	35	25.00	-	35.00	21.01		
MMW-P-09D	7/30/2012	714.82	45	35.00	-	45.00	20.67		
MMW-P-10D	7/30/2012	714.42	38	28.00	-	38.00	19.00		
MMW-P-12D	7/30/2012	715.33	36.5	31.50	-	36.50	19.02		
<b>Monitoring Wells (Apartments)</b>									
<i>Shallow Wells</i>									
MMW-1S	7/30/2012	712.92	20	10.00	-	20.00	16.80		
MMW-2S	7/30/2012	712.95	20	10.00	-	20.00	NG		
MMW-3S	7/30/2012	710.20	30	18.00	-	28.00	13.24		
MMW-7S	7/30/2012	712.09	26	12.00	-	22.00	14.88		
MMW-8S	7/30/2012	714.24	24	14.00	-	24.00	17.25		
MMW-9S	7/30/2012	713.71	25	15.00	-	25.00	18.02		
MMW-10S	7/30/2012	712.69	25	15.00	-	25.00	17.05		
MMW-11S	7/30/2012	713.17	24	14.00	-	24.00	16.98		
MMW-12S	7/30/2012	712.15	24	14.00	-	24.00	16.10		
MMW-15S	7/30/2012	713.36	32	22.00	-	32.00	16.89		
<i>Deep Wells</i>									
MMW-4D	7/30/2012	711.29	66	56.00	-	66.00	14.47		
MMW-5D	7/30/2012	711.27	51	36.00	-	41.00	14.20		
MMW-6D	7/30/2012	712.40	51	39.00	-	49.00	15.29		
MMW-11D	7/30/2012	713.33	33	23.00	-	33.00	16.81		
MMW-13D	7/30/2012	713.28	50	35.00	-	50.00	16.82		
MMW-14D	7/30/2012	712.41	50	40.00	-	50.00	15.87		
MMW-15D	7/30/2012	713.08	39	34.00	-	39.00	16.60		
<b>Floral Park Cemetery Monitoring Wells (Off-Site)</b>									
<i>Shallow Wells</i>									
MMW-C-01	7/30/2012	715.73	28	18.00	-	28.00	20.76		
MMW-C-02S	7/30/2012	714.80	28	18.00	-	28.00	20.10		
MMW-C-16S	7/30/2012	717.32	25.9	15.90	-	25.90	22.70		
MMW-P-11S	7/30/2012	716.42	26	16.00	-	26.00	21.51		
MMW-P-13S	7/30/2012	713.83	26	16.00	-	26.00	18.92		
MMW-P-14S	7/30/2012	714.50	28	18.00	-	28.00	19.96		
<i>Deep Wells</i>									
MMW-C-02D	7/30/2012	713.90	36	31.00	-	36.00	19.34		
MMW-C-16D	7/30/2012	717.27	40	35.00	-	40.00	22.67		
MMW-C-17D	7/30/2012	714.57	38.7	33.70	-	38.70	21.15		
MMW-P-11DR	7/30/2012	715.63	33	28.00	-	33.00	20.73		
MMW-P-13D	7/30/2012	713.57	33	28.00	-	33.00	18.68		
MMW-P-14D	7/30/2012	714.76	34	29.00	-	34.00	20.24		

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 Tabulated Water Level Measurements and Monitoring Well Construction Data  
 Quarter 3 - 2012  
 Michigan Plaza  
 3801-3823 West Michigan Street  
 Indianapolis, Indiana  
 MUNDELL Project No.: M01046

Monitoring Well	Date of Water Level	Top of Casing Elevation (feet MSL)	Total Depth (feet)	Screened Interval (feet)		Depth To Water (feet)	Groundwater Elevation (feet MSL)		
<b>ENVIRON Monitoring Wells (Off-Site)</b>									
<i>Shallow Wells</i>									
MW-166S	7/30/2012	712.70	20	10.00	20.00	15.95	696.75		
MW-167S	7/30/2012	716.07	22	12.00	-	22.00	696.52		
MW-168S	7/30/2012	714.58	22	12.00	-	22.00	695.82		
MW-169S	7/30/2012	715.92	25	15.00	-	25.00	694.50		
MW-170S	7/30/2012	717.14	27	17.00	-	27.00	695.07		
MW-171S	7/30/2012	711.58	22	12.00	-	22.00	695.99		
MW-174S	7/30/2012	717.78	24	14.00	24.00	22.4	695.38		
MW-175S	7/30/2012	718.66	25	15.00	25.00	21.68	696.98		
<i>Deep Wells</i>									
MW-166D	7/30/2012	712.49	51	46.00	51.00	15.71	696.78		
MW-167D	7/30/2012	715.61	33	28.00	-	33.00	696.49		
MW-168D	7/30/2012	714.46	31	26.00	-	31.00	695.78		
MW-169D	7/30/2012	715.69	37	32.00	-	37.00	694.48		
MW-170D	7/30/2012	717.07	39	34.00	-	39.00	695.07		
MW-171D	7/30/2012	711.62	49	44.00	-	49.00	694.62		
MW-174D	7/30/2012	717.72	48	43.00	48.00	22.27	695.45		
MW-175D	7/30/2012	718.75	41	37.00	42.00	21.63	697.12		
<b>U.S. EPA Monitoring Wells (Off-Site)</b>									
<i>Shallow Wells</i>									
MW-WES-01a	7/30/2012	716.30	37.5	32.5	37.5	21.03	695.27		
MW-WES-02a	7/30/2012	716.60	29	24	29	20.62	695.98		
MW-WES-03a	7/30/2012	717.68	35	30	35	23.23	694.45		
MW-WES-04a	7/30/2012	718.14	35	30	35	21.95	696.19		
MW-WES-05a	7/30/2012	717.19	25	20	25	19.67	697.52		
<i>Intermediate/Deep Wells</i>									
MW-WES-01b	7/30/2012	716.31	46	41	46	21.21	695.10		
MW-WES-01c	7/30/2012	716.28	55	50	55	21.17	695.11		
MW-WES-02b	7/30/2012	716.60	40	35	40	21.16	695.44		
MW-WES-02c	7/30/2012	716.69	50	45	50	21.07	695.62		
MW-WES-03b	7/30/2012	717.70	45	40	45	23.28	694.42		
MW-WES-04b	7/30/2012	718.14	45	40	45	21.98	696.16		
MW-WES-05b	7/30/2012	716.97	37.5	32.5	37.5	20.25	696.72		
MW-WES-05c	7/30/2012	716.49	50	45	50	20.65	695.84		
<b>Little Eagle Creek Stream Gauge Locations</b>									
Location ID	Date of Water Level	Top of Stream Gauge Elevation (Feet MSL)				Water Surface Gauge Elevation (Feet MSL)	Water Surface Elevation (Feet MSL)		
SG-1	7/30/2012	701.78				0.26	698.04		
SG-2	NG	698.85				NG	NG		

Notes:

- 1) All Top of Casing (TOC) data was obtained from or referenced to the Unified U.S. EPA Elevation Survey completed on October 13, 2011.
- 2) NG = Not Gauged; SG-2 gauging location destroyed during creek flooding between October 2011 and January 2012.

**Table 2**  
 Monitoring Well Groundwater Analytical Results  
 Quarter 3 - 2012  
 Michigan Plaza  
 3801-3823 West Michigan Street  
 Indianapolis, Indiana  
 MUNDELL Project No.: M01046

Well ID	Sample Date	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Chloroform	Vinyl chloride
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IDEML RISC Default Industrial Cleanup Level		55	31	1,000	2,000	1,000	4
IDEML RISC Default Residential Cleanup Level		5	5	70	100	80	2
<b>Monitoring Wells (Apts)</b>							
<i>Shallow Wells</i>							
MMW-1S	8/2/2012	292	27.9	<5.0	<5.0	<5.0	28.5
MMW-8S	8/2/2012	5.1	<5.0	8.5	<5.0	<5.0	139
MMW-9S	8/2/2012	<5.0	<5.0	140	30.2	<5.0	667
MMW-10S	8/2/2012	<5.0	<5.0	111	<5.0	<5.0	256
MMW-11S	7/31/2012	<5.0	<5.0	62.7	5.4	<5.0	<2.0
MMW-12S	7/31/2012	<5.0	<5.0	46.9	<5.0	<5.0	3.0
MMW-15S	8/6/2012	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
<i>Deep Wells</i>							
MMW-4D	7/31/2012	<5.0	<5.0	347	<5.0	<5.0	129
MMW-6D	7/31/2012	<5.0	<5.0	<5.0	<5.0	<5.0	38.1
MMW-11D	7/31/2012	<5.0	<5.0	310	20.3	<5.0	3.2
MMW-13D	7/31/2012	<5.0	<5.0	684	<5.0	<5.0	147
MMW-14D	7/31/2012	<5.0	<5.0	795	13.5	<5.0	95.1
MMW-15D	8/6/2012	<5.0	<5.0	11.6	<5.0	<5.0	3.1

**Table 2**  
 Monitoring Well Groundwater Analytical Results  
 Quarter 3 - 2012  
 Michigan Plaza  
 3801-3823 West Michigan Street  
 Indianapolis, Indiana  
 MUNDELL Project No.: M01046

Well ID	Sample Date	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Chloroform	Vinyl chloride
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IDEML RISC Default Industrial Cleanup Level		55	31	1,000	2,000	1,000	4
IDEML RISC Default Residential Cleanup Level		5	5	70	100	80	2
<b>Monitoring Wells (Plaza)</b>							
<i>Shallow Wells</i>							
MMW-P-01	8/2/2012	12.0	8.0	377	<5.0	<5.0	1,680
MMW-P-02	8/1/2012	6.4	<5.0	34.2	<5.0	<5.0	257
MMW-P-03S	8/1/2012	<5.0	<5.0	16.1	<5.0	<5.0	294
MMW-P-04	8/8/2012	<5.0	<5.0	5.8	<5.0	<5.0	2.7
MMW-P-05	8/2/2012	<5.0	<5.0	<5.0	<5.0	<5.0	157
MMW-P-06	8/2/2012	<5.0	<5.0	6,420	47.0	<5.0	6,510
MMW-P-07	8/2/2012	<5.0	<5.0	33.7	<5.0	<5.0	405
MMW-P-08	8/2/2012	<5.0	<5.0	879	13.9	<5.0	561
MMW-P-09S	8/1/2012	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
MMW-P-10S	8/2/2012	<5.0	<5.0	<5.0	<5.0	<5.0	26.8
MMW-P-12S	8/7/2012	<5.0	<5.0	679	20.3	<5.0	51.8
<i>Deep Wells</i>							
MMW-P-03D	8/1/2012	<5.0	<5.0	<5.0	<5.0	<5.0	175
MMW-P-09D	8/1/2012	<5.0	<5.0	<5.0	<5.0	<5.0	69.2
MMW-P-10D	8/2/2012	<5.0	<5.0	<5.0	<5.0	<5.0	475
MMW-P-12D	8/7/2012	<5.0	<5.0	750	18.8	<5.0	67.6

**Table 2**  
 Monitoring Well Groundwater Analytical Results  
 Quarter 3 - 2012  
 Michigan Plaza  
 3801-3823 West Michigan Street  
 Indianapolis, Indiana  
 MUNDELL Project No.: M01046

Well ID	Sample Date	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Chloroform	Vinyl chloride
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IDEML RISC Default Industrial Cleanup Level		55	31	1,000	2,000	1,000	4
IDEML RISC Default Residential Cleanup Level		5	5	70	100	80	2
<b>Floral Park Monitoring Wells (Off-site)</b>							
<i>Shallow Wells</i>							
MMW-C-01	8/1/2012	<5.0	<5.0	8.9	<5.0	<5.0	29.2
MMW-C-02S	8/1/2012	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
MMW-C-16S	8/6/2012	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
MMW-P-11S	8/7/2012	88.1	<5.0	14.7	<5.0	<5.0	11.4
MMW-P-13S	8/7/2012	<5.0	<5.0	<5.0	<5.0	<5.0	8.9
MMW-P-14S	8/7/2012	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
<i>Deep Wells</i>							
MMW-C-02D	8/8/2012	<5.0	<5.0	<5.0	<5.0	<5.0	95.1
MMW-C-16D	8/6/2012	<5.0	<5.0	<5.0	<5.0	<5.0	224
MMW-C-17D	8/6/2012	<5.0	<5.0	<5.0	<5.0	<5.0	2.7
MMW-P-11DR	8/7/2012	<5.0	<5.0	11.7	<5.0	<5.0	102
MMW-P-13D	8/7/2012	<5.0	<5.0	<5.0	<5.0	<5.0	167
MMW-P-14D	8/7/2012	<5.0	<5.0	<5.0	<5.0	<5.0	58.1

**Table 2**  
 Monitoring Well Groundwater Analytical Results  
 Quarter 3 - 2012  
 Michigan Plaza  
 3801-3823 West Michigan Street  
 Indianapolis, Indiana  
 MUNDELL Project No.: M01046

Well ID	Sample Date	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Chloroform	Vinyl chloride
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IDEML RISC Default Industrial Cleanup Level		55	31	1,000	2,000	1,000	4
IDEML RISC Default Residential Cleanup Level		5	5	70	100	80	2
<b>Keramida/ENVIRON Monitoring Wells (Off-Site)</b>							
<i>Shallow Wells</i>							
MW-170S	8/3/2012	<5.0	<5.0	7.9	<5.0	<5.0	<2.0
<i>Deep Wells</i>							
MW-167D	8/3/2012	<5.0	<5.0	422	26.4	<5.0	8.4
MW-168D	8/3/2012	<5.0	<5.0	<5.0	<5.0	<5.0	104
MW-170D	8/3/2012	<5.0	<5.0	<5.0	<5.0	<5.0	77.2

Notes:

Exceedances of IDEM RISC Industrial Default Cleanup Level in **RED**

Exceedances of IDEM RISC Residential Default Cleanup Level in **BLUE**

PCE = Tetrachloroethene; TCE = Trichloroethene; cis-1,2-DCE = cis-1,2-Dichloroethene; trans-1,2-DCE = trans-1,2-Dichloroethene

NS = Not Sampled

NA = Not Analyzed

All analytical results presented in micrograms per liter (ug/L).

**Table 3**  
**Cumulative Monitoring Well Groundwater Analytical Results**  
**Quarter 3 - 2012**  
**Michigan Plaza**  
**3801-3823 West Michigan Street**  
**Indianapolis, Indiana**  
**MUNDELL Project No.: M01046**

Well ID	Sample Date	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Chloroform	Vinyl chloride
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IDEM RISC Industrial Default Cleanup Level - 2006		55	31	1,000	2,000	1,000	4
IDEM RISC Residential Default Cleanup Level - 2006		5	5	70	100	80	2
<b>Monitoring Wells (Apts)</b>							
<i>Shallow Wells</i>							
MMW-1S	9/10/2004	< 5.0	< 5.0	< 5.0	< 5.0	<5.0	4.1
	3/15/2005	150	10.0	< 5.0	< 5.0	< 5.0	< 2.0
	11/9/2005	130	8.3	<5.0	<5.0	<5.0	8.9
	9/5/2006	200	13.0	<5.0	<5.0	<5.0	4.6
	2/22/2007	220	14.9	<5.0	<5.0	<5.0	<2.0
	6/14/2007	240	<5.0	<5.0	<5.0	<5.0	<2.0
	9/19/2007	362	10.5	<5.0	<5.0	31.6	<2.0
	12/13/2007	330	8.1	<5.0	<5.0	27.0	<2.0
	3/21/2008	280	14.0	<5.0	<5.0	<5.0	<2.0
	6/6/2008	277	13.2	<5.0	<5.0	<5.0	<2.0
	9/11/2008	288	14.7	<5.0	<5.0	<5.0	<2.0
	11/20/2008	223	45.5	169	<5.0	<5.0	14.5
	3/16/2009	199	11.3	<5.0	<5.0	<5.0	<2.0
	6/16/2009	237	13.4	<5.0	<5.0	<5.0	<2.0
	8/5/2009	195	22.9	71.3	<5.0	<5.0	9.3
	11/2/2009	189	39.0	119	<5.0	<5.0	26.6
	2/3/2010	160	49.7	59.1	<5.0	<5.0	35.4
	4/22/2010	206	14.7	<5.0	<5.0	<5.0	<2.0
	7/21/2010	310	21.8	<5.0	<5.0	<5.0	<2.0
	10/12/2010	89.4	21.3	208	<5.0	<5.0	32.2
	1/19/2011	217	46.2	35.4	<5.0	<5.0	21.8
	5/4/2011	449	22.7	12.1	<5.0	<5.0	<2.0
	7/28/2011	334	20.3	8.1	<5.0	<5.0	2.1
	10/19/2011	136	66.0	75.3	<5.0	<5.0	14.3
	2/14/2012	219	9.7	<5.0	<5.0	<5.0	<2.0
	4/25/2012	270	11.2	34.2	<5.0	<5.0	39.0
	8/2/2012	292	27.9	<5.0	<5.0	<5.0	28.5
MMW-2S	9/10/2004	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	11/9/2005	<5.0	<5.0	<5.0	<5.0	<5.0	5.2
	9/5/2006	<5.0	<5.0	<5.0	<5.0	<5.0	5.2
	2/22/2007	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	6/2/2008	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	6/15/2009	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	4/22/2010	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	4/30/2011	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	4/23/2012	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
MMW-3S	8/26/2004	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	9/10/2004	<5.0	5.2	<5.0	<5.0	<5.0	<2.0
	11/9/2005	<5.0	28.0	5.4	<5.0	<5.0	<2.0
	9/5/2006	<5.0	23.0	7.4	<5.0	<5.0	<2.0
	2/22/2007	<5.0	20.6	8.5	<5.0	<5.0	<2.0
	6/2/2008	<5.0	20.2	7.9	<5.0	<5.0	2.8
	6/15/2009	<5.0	15.3	11.7	<5.0	<5.0	3.0
	4/20/2010	<5.0	15.9	8.0	<5.0	<5.0	<2.0
	5/4/2011	<5.0	12.4	12.4	<5.0	<5.0	4.4
	4/23/2012	<5.0	9.9	5.8	<5.0	<5.0	<2.0
MMW-7S	8/24/2004	<5.0	<5.0	28.0	<5.0	<5.0	<2.0
	9/10/2004	<5.0	<5.0	8.5	<5.0	<5.0	<2.0
	11/9/2005	<5.0	<5.0	9.5	<5.0	<5.0	<2.0
	9/5/2006	<5.0	<5.0	5.8	<5.0	<5.0	4.5
	2/21/2007	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	6/2/2008	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	6/15/2009	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	4/20/2010	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	5/4/2011	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	4/26/2012	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0

**Table 3**  
 Cumulative Monitoring Well Groundwater Analytical Results  
 Quarter 3 - 2012  
 Michigan Plaza  
 3801-3823 West Michigan Street  
 Indianapolis, Indiana  
 MUNDELL Project No.: M01046

Well ID	Sample Date	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Chloroform	Vinyl chloride
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IDEM RISC Industrial Default Cleanup Level - 2006		55	31	1,000	2,000	1,000	4
IDEM RISC Residential Default Cleanup Level - 2006		5	5	70	100	80	2
MMW-8S	2/22/2007	114	<5.0	289	13.8	<5.0	40.6
	6/14/2007	15.9	<5.0	364	9.5	<5.0	82.1
	9/19/2007	<5.0	<5.0	778	24.6	<5.0	145
	12/13/2007	7.7	<5.0	1,000	7.4	<5.0	586
	3/20/2008	<5.0	<5.0	470	<5.0	<5.0	330
	6/6/2008	<5.0	<5.0	336	<5.0	<5.0	509
	9/10/2008	<5.0	<5.0	275	<5.0	<5.0	322
	11/20/2008	<5.0	<5.0	123	<5.0	<5.0	584
	3/16/2009	<5.0	<5.0	95.0	<5.0	<5.0	348
	6/16/2009	<5.0	<5.0	94.3	6.1	<5.0	280
	8/5/2009	<5.0	<5.0	83.8	<5.0	<5.0	261
	11/2/2009	<5.0	<5.0	58.3	<5.0	<5.0	277
	2/3/2010	7.9	<5.0	15.3	<5.0	<5.0	236
	4/22/2010	<5.0	<5.0	9.0	<5.0	<5.0	151
	7/21/2010	6.2	<5.0	14.9	<5.0	5.0	230
	10/12/2010	8.4	<5.0	5.4	<5.0	<5.0	158
	1/19/2011	14.1	<5.0	<5.0	<5.0	<5.0	172
	4/30/2011	677	19.5	37.2	<5.0	<5.0	108
	7/28/2011	19.4	<5.0	29.0	<5.0	<5.0	130
	10/24/2011	7.9	<5.0	9.9	<5.0	<5.0	200
MMW-9S	2/14/2012	<5.0	<5.0	12.6	<5.0	<5.0	148
	4/25/2012	<5.0	<5.0	15.6	<5.0	<5.0	90.6
	8/2/2012	5.1	<5.0	8.5	<5.0	<5.0	139
	2/22/2007	782	88.6	78.9	<5.0	<5.0	<2.0
	6/14/2007	858	85.7	65.3	<5.0	<5.0	<2.0
	9/20/2007	1,430	112	70.3	8.2	<5.0	<2.0
	12/12/2007	<50.0	<50.0	1,700	<50.0	<50.0	<20.0
	3/21/2008	57.0	20.0	2,900	39.0	<5.0	16.0
	6/6/2008	52.9	28.0	1,540	38.2	<5.0	295
	9/10/2008	52.6	22.7	4,920	94.5	<5.0	167
	11/20/2008	<5.0	<5.0	5,820	90.2	<5.0	1,010
	3/16/2009	<50.0	<50.0	7,490	73.8	<50.0	1,800
	6/16/2009	44.5	24.9	4,810	64.0	<5.0	876
	8/5/2009	<5.0	<5.0	5,010	64.2	<5.0	1,110
	11/2/2009	<5.0	<5.0	5,410	120	<5.0	1,050
	2/3/2010	<50.0	<50.0	5,090	98.4	<50.0	1,700
	4/22/2010	<5.0	<5.0	4,300	77.1	<5.0	1,710
	7/21/2010	<50.0	<50.0	2,910	73.2	<50.0	2,020
	10/12/2010	<50.0	<50.0	2,430	<50.0	<50.0	1,270
	1/19/2011	<50.0	<50.0	1,580	136	<50.0	1,490
	5/4/2011	11.1	13.4	2,900	71.7	<5.0	1,350
	7/27/2011	<5.0	<5.0	933	32.0	<5.0	747
	10/24/2011	<5.0	<5.0	2,330	92.8	<5.0	694
	2/14/2012	<25.0	<25.0	2,040	60.8	<25.0	1,140
	4/25/2012	<5.0	<5.0	1,180	30.1	<5.0	753
	8/2/2012	<5.0	<5.0	140	30.2	<5.0	667

**Table 3**  
**Cumulative Monitoring Well Groundwater Analytical Results**  
**Quarter 3 - 2012**  
**Michigan Plaza**  
**3801-3823 West Michigan Street**  
**Indianapolis, Indiana**  
**MUNDELL Project No.: M01046**

Well ID	Sample Date	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Chloroform	Vinyl chloride
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IDEM RISC Industrial Default Cleanup Level - 2006		55	31	1,000	2,000	1,000	4
IDEM RISC Residential Default Cleanup Level - 2006		5	5	70	100	80	2
MMW-10S	2/22/2007	49.6	<5.0	<5.0	<5.0	<5.0	<2.0
	6/14/2007	77.6	<5.0	<5.0	<5.0	<5.0	<2.0
	9/19/2007	66.0	<5.0	<5.0	<5.0	<5.0	<2.0
	12/12/2007	124	56.0	149	<5.0	<5.0	<2.0
	3/21/2008	440	12.0	8.1	<5.0	<5.0	12.0
	6/6/2008	541	62.1	218	<5.0	<5.0	30.4
	9/10/2008	6.9	<5.0	353	8.2	<5.0	<2.0
	11/20/2008	<5.0	<5.0	212	<5.0	<5.0	15.9
	3/16/2009	<5.0	<5.0	302	<5.0	<5.0	114
	6/16/2009	22.8	15.4	415	12.0	<5.0	81.4
	8/5/2009	<5.0	<5.0	224	5.5	<5.0	156
	11/2/2009	12.8	10.1	239	5.6	<5.0	119
	2/3/2010	8.3	7.5	180	5.1	<5.0	148
	4/22/2010	<5.0	7.9	165	<5.0	<5.0	143
	7/21/2010	15.6	9.7	267	8.3	<5.0	239
	10/12/2010	<5.0	<5.0	100	<5.0	<5.0	96.1
	1/19/2011	<5.0	14.4	80.9	12.7	<5.0	88.0
	5/4/2011	429	76.6	464	16.9	<5.0	130
	7/27/2011	24.5	14.3	206	7.2	<5.0	295
	10/19/2011	5.2	<5.0	134	<5.0	<5.0	198
MMW-11S	2/14/2012	35.0	21.6	357	6.7	<5.0	265
	4/24/2012	54.0	23.8	194	6.1	<5.0	196
	8/2/2012	<5.0	<5.0	111	<5.0	<5.0	256
	6/14/2007	<5.0	<5.0	225	6.8	<5.0	18.6
	9/19/2007	<5.0	<5.0	442	21.1	<5.0	30.1
	12/13/2007	7.2	<5.0	920	27.0	<5.0	49.0
	3/20/2008	<5.0	<5.0	420	17.0	<5.0	4.9
	6/5/2008	<5.0	<5.0	623	23.1	<5.0	26.7
	9/10/2008	<5.0	<5.0	327	18.3	<5.0	9.9
	11/20/2008	<5.0	<5.0	554	23.9	<5.0	18.5
	3/16/2009	<5.0	<5.0	37.6	<5.0	<5.0	<2.0
	6/16/2009	<5.0	<5.0	253	17.9	<5.0	2.8
	8/5/2009	<5.0	<5.0	80.7	5.5	<5.0	3.1
	11/2/2009	<5.0	<5.0	59.9	<5.0	<5.0	<2.0
	2/3/2010	<5.0	<5.0	29.4	<5.0	<5.0	<2.0
	4/22/2010	<5.0	<5.0	17.7	<5.0	<5.0	<2.0
	7/21/2010	<5.0	<5.0	120	7.4	<5.0	4.3
	10/12/2010	<5.0	<5.0	85.1	5.6	<5.0	<2.0
	1/19/2011	<5.0	<5.0	46.3	12.9	<5.0	<2.0
	4/30/2011	<5.0	<5.0	8.3	<5.0	<5.0	<2.0
MMW-12S	7/26/2011	<5.0	<5.0	15.1	<5.0	<5.0	<2.0
	10/21/2011	<5.0	<5.0	33.9	<5.0	<5.0	<2.0
	2/14/2012	<5.0	<5.0	5.4	<5.0	<5.0	<2.0
	4/24/2012	<5.0	<5.0	42.5	5.1	<5.0	<2.0
	7/31/2012	<5.0	<5.0	62.7	5.4	<5.0	<2.0
	6/16/2009	<5.0	<5.0	9.7	<5.0	<5.0	6.5
	8/5/2009	<5.0	<5.0	47.3	<5.0	<5.0	15.2
	11/2/2009	<5.0	<5.0	28.8	<5.0	<5.0	7.1
	2/3/2010	<5.0	<5.0	11.4	<5.0	<5.0	2.1
	4/20/2010	<5.0	<5.0	5.3	<5.0	<5.0	<2.0
	7/21/2010	<5.0	<5.0	25.4	<5.0	<5.0	7.3
	10/12/2010	<5.0	<5.0	16.8	<5.0	<5.0	<2.0
	1/18/2011	<5.0	<5.0	19.7	<5.0	<5.0	<2.0
	4/30/2011	<5.0	<5.0	30.6	<5.0	<5.0	2.7
	7/26/2011	<5.0	<5.0	24.3	<5.0	<5.0	<2.0
	10/18/2011	<5.0	<5.0	39.4	<5.0	<5.0	<2.0
	2/14/2012	<5.0	<5.0	24.0	<5.0	<5.0	<2.0
	4/23/2012	<5.0	<5.0	45.2	<5.0	<5.0	2.6
	7/31/2012	<5.0	<5.0	46.9	<5.0	<5.0	3.0
MMW-15S	2/15/2012	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	4/26/2012	<5.0	<5.0	11.2	<5.0	<5.0	<2.0
	8/6/2012	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0

**Table 3**  
**Cumulative Monitoring Well Groundwater Analytical Results**  
**Quarter 3 - 2012**  
**Michigan Plaza**  
**3801-3823 West Michigan Street**  
**Indianapolis, Indiana**  
**MUNDELL Project No.: M01046**

Well ID	Sample Date	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Chloroform	Vinyl chloride
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IDEM RISC Industrial Default Cleanup Level - 2006		55	31	1,000	2,000	1,000	4
IDEM RISC Residential Default Cleanup Level - 2006		5	5	70	100	80	2
<i>Deep Wells</i>							
MMW-4D	8/25/2004	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	9/10/2004	<5.0	<5.0	980	<5.0	<5.0	200
	11/10/2005	<5.0	<5.0	850	<5.0	<5.0	240
	9/5/2006	<5.0	<5.0	1,100	<5.0	<5.0	220
	2/22/2007	<5.0	<5.0	1,460	<5.0	<5.0	248
	6/2/2008	<5.0	<5.0	515	<5.0	<5.0	32.2
	6/15/2009	<5.0	<5.0	892	7.0	<5.0	142
	4/20/2010	<5.0	<5.0	719	<5.0	<5.0	237
	4/29/2011	<5.0	<5.0	1,050	<5.0	<5.0	164
	2/14/2012	<5.0	<5.0	639	<5.0	<5.0	237
	4/23/2012	<5.0	<5.0	338	<5.0	<5.0	176
	7/31/2012	<5.0	<5.0	347	<5.0	<5.0	129
MMW-5D	8/24/2004	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	9/10/2004	<5.0	<5.0	3,400	13.0	<5.0	270
	11/10/2005	<5.0	<5.0	3,900	19.0	<5.0	140
	9/5/2006	<50.0	<50	2,500	<50	<5.0	170
	2/22/2007	<50.0	<50	3,970	<50	<5.0	359
	6/2/2008	<5.0	<5.0	1,360	19.9	<5.0	207
	6/15/2009	<5.0	<5.0	1,110	14.5	<5.0	242
	4/20/2010	<5.0	<5.0	943	<5.0	<5.0	204
	4/29/2011	<5.0	<5.0	659	<5.0	<5.0	166
	4/23/2012	<5.0	<5.0	228	<5.0	<5.0	126
MMW-6D	9/10/2004	<5.0	<5.0	540	<5.0	<5.0	400
	11/10/2005	<5.0	<5.0	750	<5.0	<5.0	700
	9/5/2006	<5.0	<5.0	300	<5.0	<5.0	440
	2/21/2007	<5.0	<5.0	171	<5.0	<5.0	282
	6/2/2008	<5.0	<5.0	65.5	<5.0	<5.0	242
	6/15/2009	<5.0	<5.0	8.6	<5.0	<5.0	111
	4/20/2010	<5.0	<5.0	8.2	<5.0	<5.0	63.6
	4/29/2011	<5.0	<5.0	<5.0	<5.0	<5.0	51.1
	2/14/2012	<5.0	<5.0	<5.0	<5.0	<5.0	43.9
	4/23/2012	<5.0	<5.0	<5.0	<5.0	<5.0	38.5
	7/31/2012	<5.0	<5.0	<5.0	<5.0	<5.0	38.1
MMW-11D	6/16/2009	<5.0	<5.0	25.3	6.7	<5.0	<2.0
	8/5/2009	<5.0	<5.0	485	22.6	<5.0	15.3
	11/2/2009	<5.0	<5.0	771	31.8	<5.0	18.8
	2/3/2010	<5.0	<5.0	301	28.2	<5.0	5.2
	4/22/2010	<5.0	<5.0	307	21.8	<5.0	2.6
	7/21/2010	<5.0	<5.0	396	21.8	<5.0	10.9
	10/12/2010	<5.0	<5.0	162	<5.0	<5.0	<2.0
	1/19/2011	<5.0	<5.0	570	26.7	<5.0	5.9
	4/30/2011	<5.0	<5.0	356	17.2	<5.0	3.6
	7/26/2011	<5.0	<5.0	304	18.3	<5.0	3.6
	10/21/2011	<5.0	<5.0	751	22.7	<5.0	11.8
	2/14/2012	<5.0	<5.0	240	19.0	<5.0	<2.0
	4/24/2012	<5.0	<5.0	186	13.0	<5.0	<2.0
MMW-13D	7/31/2012	<5.0	<5.0	310	20.3	<5.0	3.2
	8/5/2009	<5.0	<5.0	672	<5.0	<5.0	59.2
	11/2/2009	<5.0	<5.0	949	<5.0	<5.0	182
	2/3/2010	<5.0	<5.0	819	6.2	<5.0	260
	4/22/2010	<5.0	<5.0	469	<5.0	<5.0	4.6
	7/21/2010	<5.0	<5.0	432	<5.0	<5.0	16.6
	10/12/2010	<5.0	<5.0	1,200	<5.0	<5.0	187
	1/19/2011	<5.0	<5.0	920	12.3	<5.0	179
	4/30/2011	<5.0	<5.0	527	<5.0	<5.0	15.4
	7/26/2011	<5.0	<5.0	328	<5.0	<5.0	11.9
	10/18/2011	<5.0	<5.0	771	5.2	<5.0	140
	2/14/2012	<5.0	<5.0	331	<5.0	<5.0	9.9
	4/24/2012	<5.0	<5.0	422	<5.0	<5.0	46.7
	7/31/2012	<5.0	<5.0	684	<5.0	<5.0	147
MMW-13D Low	6/16/2009	<5.0	<5.0	613	10.4	<5.0	17.3
MMW-13D Medium (29')	6/16/2009	<5.0	<5.0	578	12.1	<5.0	14.9
MMW-13D High (17')	6/16/2009	<5.0	<5.0	597	9.7	<5.0	21.1

**Table 3**  
 Cumulative Monitoring Well Groundwater Analytical Results  
 Quarter 3 - 2012  
 Michigan Plaza  
 3801-3823 West Michigan Street  
 Indianapolis, Indiana  
 MUNDELL Project No.: M01046

Well ID	Sample Date	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Chloroform	Vinyl chloride
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IDEM RISC Industrial Default Cleanup Level - 2006		55	31	1,000	2,000	1,000	4
IDEM RISC Residential Default Cleanup Level - 2006		5	5	70	100	80	2
MMW-14D	6/16/2009	<5.0	<5.0	648	15.6	<5.0	57.6
	8/5/2009	<5.0	<5.0	589	10.9	<5.0	79.1
	11/2/2009	<5.0	<5.0	541	9.2	<5.0	83.8
	2/3/2010	<5.0	<5.0	871	13.9	<5.0	84.9
	4/20/2010	<5.0	<5.0	763	14.1	<5.0	72.8
	7/21/2010	<5.0	<5.0	805	14.6	<5.0	60.8
	10/12/2010	<5.0	<5.0	775	8.4	<5.0	83.3
	1/18/2011	<5.0	<5.0	785	24.0	<5.0	109
	4/30/2011	<5.0	<5.0	1,070	14.7	<5.0	68.3
	7/26/2011	<5.0	<5.0	875	15.3	<5.0	81.0
	10/19/2011	<5.0	<5.0	898	11.1	<5.0	92.6
	2/14/2012	<5.0	<5.0	1080	17.4	<5.0	89.7
	4/23/2012	<5.0	<5.0	996	11.0	<5.0	79.6
	7/31/2012	<5.0	<5.0	795	13.5	<5.0	95.1
MMW-15D	2/15/2012	<5.0	<5.0	7.3	<5.0	<5.0	<2.0
	4/26/2012	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	8/6/2012	<5.0	<5.0	11.6	<5.0	<5.0	3.1
<b>Monitoring Wells (Plaza)</b>							
Shallow Wells							
MMW-P-01	11/9/2005	33	210	160	9.6	<5.0	76.0
	2/22/2007	85.2	356	274	16.7	<5.0	28.7
	6/14/2007	111	368	350	10.0	<5.0	79.6
	9/20/2007	206	322	300	11.5	<5.0	127
	12/14/2007	230	320	240	7.1	<5.0	87.0
	3/21/2008	120	170	3,100	25.0	<5.0	42.0
	6/5/2008	22.0	31.5	3,660	68.6	<5.0	123
	9/11/2008	14.2	15.1	1,690	<5.0	<5.0	87.7
	11/19/2008	<5.0	<5.0	4,320	<5.0	<5.0	116
	3/17/2009	17.5	22.6	12,300	143	<5.0	3,290
	6/17/2009	<50.0	<50.0	4,020	63.9	<50.0	1,840
	8/6/2009	97.4	<50.0	12,200	<50.0	<50.0	3,730
	11/3/2009	103	58.3	9,330	<50.0	<50.0	4,770
	2/4/2010	104	60.6	9,190	130	<50.0	13,600
	4/22/2010	90.5	79.0	9,400	94.7	<50.0	12,600
	7/7/2010	<50.0	<50.0	1,880	<50.0	<50.0	2,960
	10/14/2010	<125	<125	4,760	<125	<125	5,440
	1/20/2011	153	140	1,960	<50.0	<50.0	11,100
	5/5/2011	8.4	26.8	281	<5.0	<5.0	232
	7/28/2011	5.7	6.0	734	<5.0	<5.0	1,070
	10/24/2011	23.4	10.0	839	9.10	<5.0	1,410
	2/13/2012	15.0	<5.0	438	<5.0	<5.0	2,270
	4/25/2012	21.8	11.0	459	8.1	<5.0	1,720
	8/2/2012	12.0	8.0	377	<5.0	<5.0	1,680

**Table 3**  
 Cumulative Monitoring Well Groundwater Analytical Results  
 Quarter 3 - 2012  
 Michigan Plaza  
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 Indianapolis, Indiana  
 MUNDELL Project No.: M01046

Well ID	Sample Date	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Chloroform	Vinyl chloride
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IDEM RISC Industrial Default Cleanup Level - 2006		55	31	1,000	2,000	1,000	4
IDEM RISC Residential Default Cleanup Level - 2006		5	5	70	100	80	2
MMW-P-02	11/8/2005	24.0	<5.0	87.0	7.3	<5.0	49.0
	2/22/2007	184	<5.0	39.4	<5.0	<5.0	27.4
	6/14/2007	17.1	<5.0	35.0	<5.0	<5.0	27.5
	9/19/2007	13.3	<5.0	66.3	5.6	<5.0	50.1
	12/13/2007	7.8	<5.0	69.0	<5.0	<5.0	53.0
	3/20/2008	19.0	<5.0	67.0	<5.0	<5.0	42.0
	6/5/2008	94.9	<5.0	44.0	<5.0	<5.0	46.4
	9/11/2008	17.5	<5.0	46.6	<5.0	<5.0	42.0
	11/19/2008	10.7	<5.0	75.4	<5.0	<5.0	69.5
	3/17/2009	23.4	<5.0	65.4	5.3	<5.0	68.4
	6/17/2009	5.1	<5.0	54.2	9.2	<5.0	80.6
	8/6/2009	5.1	<5.0	55.8	<5.0	<5.0	56.2
	11/3/2009	11.1	<5.0	60.1	<5.0	<5.0	73.9
	2/4/2010	7.4	<5.0	75.8	5.8	<5.0	104
	4/22/2010	9.9	6.8	56.0	8.0	<5.0	110
	7/21/2010	24.0	<5.0	72.4	<5.0	<5.0	161
	10/13/2010	9.3	<5.0	61.0	<5.0	<5.0	95.0
	1/19/2011	15.9	<5.0	64.3	14.0	<5.0	396
	5/4/2011	9.2	<5.0	56.5	<5.0	<5.0	386
MMW-P-03S	7/27/2011	<5.0	<5.0	42.9	<5.0	<5.0	218
	10/19/2011	9.1	<5.0	36.9	<5.0	<5.0	304
	2/13/2012	<5.0	<5.0	120.0	<5.0	<5.0	479
	4/25/2012	<5.0	<5.0	53.4	<5.0	<5.0	274
	8/1/2012	6.4	<5.0	34.2	<5.0	<5.0	257
	11/9/2005	110	<5.0	97.0	9.6	<5.0	<2.0
	2/22/2007	397	<5.0	105	10.0	<5.0	<2.0
	6/14/2007	256	<5.0	96.4	9.2	<5.0	9.3
	9/20/2007	144	<5.0	131	15.8	<5.0	16.0
	12/13/2007	67.0	<5.0	88.0	5.3	<5.0	15.0
	3/20/2008	130	<5.0	84.0	7.3	<5.0	10.0
	6/5/2008	19.4	<5.0	380	14.9	<5.0	10.6
	9/11/2008	<5.0	<5.0	<5.0	<5.0	<5.0	72.6
	11/19/2008	<5.0	6.0	494	<5.0	<5.0	40.8
	3/17/2009	7.5	<5.0	904	38.7	<5.0	283
	6/17/2009	<5.0	<5.0	332	22.3	<5.0	759
	8/6/2009	30.6	8.2	573	25.0	<5.0	843
	11/3/2009	<5.0	<5.0	141	16.1	<5.0	379
	2/4/2010	<5.0	<5.0	155	19.4	<5.0	382
	4/22/2010	14.2	8.9	156	13.4	<5.0	377
	7/21/2010	<5.0	<5.0	<5.0	<5.0	<5.0	141
	10/13/2010	<5.0	<5.0	70.9	9.2	<5.0	542
	1/19/2011	<5.0	<5.0	79.7	19.4	<5.0	338
	5/4/2011	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	7/27/2011	<5.0	<5.0	29.3	<5.0	<5.0	245
	10/19/2011	<5.0	<5.0	33.5	6.6	<5.0	446
	2/13/2012	<5.0	<5.0	48.0	<5.0	<5.0	221
	4/25/2012	<5.0	<5.0	18.4	<5.0	<5.0	257
	8/1/2012	<5.0	<5.0	16.1	<5.0	<5.0	294

**Table 3**  
 Cumulative Monitoring Well Groundwater Analytical Results  
 Quarter 3 - 2012  
 Michigan Plaza  
 3801-3823 West Michigan Street  
 Indianapolis, Indiana  
 MUNDELL Project No.: M01046

Well ID	Sample Date	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Chloroform	Vinyl chloride
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IDEM RISC Industrial Default Cleanup Level - 2006		55	31	1,000	2,000	1,000	4
IDEM RISC Residential Default Cleanup Level - 2006		5	5	70	100	80	2
MMW-P-04	11/9/2005	180	<5.0	<5.0	<5.0	<5.0	<2.0
	2/22/2007	315	<5.0	<5.0	<5.0	<5.0	<2.0
	6/14/2007	268	<5.0	<5.0	<5.0	<5.0	<2.0
	9/20/2007	214	<5.0	<5.0	<5.0	<5.0	<2.0
	12/13/2007	62.0	<5.0	<5.0	<5.0	<5.0	<2.0
	3/20/2008	120	<5.0	<5.0	<5.0	<5.0	<2.0
	6/6/2008	154	6.0	59.7	<5.0	<5.0	<2.0
	9/11/2008	31.9	<5.0	360	7.1	<5.0	<2.0
	11/19/2008	45.0	<5.0	248	<5.0	<5.0	<2.0
	3/18/2009	19.4	5.4	304	10.8	<5.0	<2.0
	6/17/2009	35.3	5.4	827	22.0	<5.0	2.0
	8/6/2009	<5.0	<5.0	15.1	<5.0	<5.0	<2.0
	11/5/2009	<5.0	<5.0	1,190	36.9	<5.0	90.9
	2/12/2010	<5.0	<5.0	144	8.3	<5.0	224
	4/21/2010	<5.0	<5.0	268	15.8	<5.0	364
	7/22/2010	<5.0	<5.0	189	12.9	<5.0	402
	10/13/2010	<5.0	<5.0	10.3	<5.0	<5.0	16.8
	2/18/2011	<5.0	<5.0	6.4	<5.0	<5.0	36.3
	5/5/2011	144	<5.0	76.2	<5.0	<5.0	124
	7/28/2011	<5.0	<5.0	30.6	<5.0	<5.0	78.8
	10/24/2011	<5.0	<5.0	14.8	<5.0	<5.0	68.7
	2/16/2012	<5.0	<5.0	6.9	<5.0	<5.0	16.1
	5/1/2012	<5.0	<5.0	<5.0	<5.0	<5.0	5.7
	8/10/2012	<5.0	<5.0	5.8	<5.0	<5.0	2.7
MMW-P-05	11/8/2005	<5.0	<5.0	6.2	<5.0	<5.0	<2.0
	2/22/2007	23.7	<5.0	9.1	<5.0	<5.0	<2.0
	6/14/2007	<5.0	<5.0	18.8	<5.0	<5.0	<2.0
	9/19/2007	<5.0	<5.0	18.8	<5.0	<5.0	<2.0
	12/14/2007	<5.0	<5.0	14.8	<5.0	<5.0	<2.0
	3/20/2008	<5.0	<5.0	8.1	<5.0	<5.0	<2.0
	6/5/2008	<5.0	<5.0	15.6	<5.0	<5.0	<2.0
	9/11/2008	<5.0	<5.0	16.7	<5.0	<5.0	<2.0
	11/19/2008	<5.0	<5.0	22.1	<5.0	<5.0	<2.0
	3/17/2009	<5.0	<5.0	13.7	<5.0	<5.0	<2.0
	6/17/2009	<5.0	<5.0	10.9	6.6	<5.0	<2.0
	8/6/2009	<5.0	<5.0	15.1	<5.0	<5.0	<2.0
	11/3/2009	<5.0	<5.0	7.6	<5.0	<5.0	2.7
	2/4/2010	<5.0	<5.0	6.8	<5.0	<5.0	<2.0
	4/22/2010	<5.0	<5.0	8.6	<5.0	<5.0	<2.0
	7/21/2010	<5.0	<5.0	10.4	<5.0	<5.0	5.3
	10/13/2010	<5.0	<5.0	13.6	<5.0	<5.0	3.9
	1/20/2011	<5.0	<5.0	14.1	<5.0	<5.0	<2.0
	4/30/2011	<5.0	<5.0	<5.0	<5.0	<5.0	9.2
	7/27/2011	<5.0	<5.0	10.3	<5.0	<5.0	307
	10/19/2011	<5.0	<5.0	8.3	<5.0	<5.0	48.3
	2/13/2012	<5.0	<5.0	<5.0	<5.0	<5.0	79.4
	4/25/2012	<5.0	<5.0	<5.0	<5.0	<5.0	80.9
	8/2/2012	<5.0	<5.0	<5.0	<5.0	<5.0	157

**Table 3**  
**Cumulative Monitoring Well Groundwater Analytical Results**  
**Quarter 3 - 2012**  
**Michigan Plaza**  
**3801-3823 West Michigan Street**  
**Indianapolis, Indiana**  
**MUNDELL Project No.: M01046**

Well ID	Sample Date	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Chloroform	Vinyl chloride
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IDEM RISC Industrial Default Cleanup Level - 2006		55	31	1,000	2,000	1,000	4
IDEM RISC Residential Default Cleanup Level - 2006		5	5	70	100	80	2
MMW-P-06	11/8/2005	<5.0	<5.0	200	24.0	<5.0	21.0
	2/22/2007	<5.0	<5.0	158	19.2	<5.0	<2.0
	6/14/2007	<5.0	<5.0	214	22.7	<5.0	13.3
	9/19/2007	<5.0	<5.0	283	38.2	<5.0	26.1
	12/14/2007	<5.0	<5.0	260	40.0	<5.0	31.0
	3/20/2008	<5.0	<5.0	250	31.0	<5.0	26.0
	6/5/2008	<5.0	<5.0	265	30.9	<5.0	40.1
	9/11/2008	<5.0	<5.0	271	33.3	<5.0	<2.0
	11/19/2008	<5.0	<5.0	292	<5.0	<5.0	61.4
	3/17/2009	<5.0	<5.0	292	35.3	<5.0	<2.0
	6/17/2009	<5.0	<5.0	145	22.2	<5.0	90.6
	8/6/2009	<5.0	<5.0	136	14.3	<5.0	301
	11/3/2009	<5.0	<5.0	107	15.2	<5.0	292
	2/4/2010	<5.0	<5.0	79.1	11.2	<5.0	1,870
	4/22/2010	<5.0	<5.0	23.7	8.0	<5.0	2,470
	7/21/2010	<50.0	<50.0	<50.0	<50.0	<50.0	5,870
	10/14/2010	<100	<100	<100	<100	<100	12,900
	1/20/2011	<100	<100	2,700	<100	<100	15,000
	5/4/2011	<50.0	<50.0	2,850	<50.0	<50.0	14,400
	7/28/2011	<50.0	<50.0	1,670	<50.0	<50.0	15,600
	10/24/2011	<50.0	<50.0	10,100	<50.0	<50.0	11,300
MMW-P-07	2/13/2012	<50.0	<50.0	2,800	<50.0	<50.0	10,100
	4/26/2012	<5.0	<5.0	3,220	29.2	<5.0	7,090
	8/2/2012	<5.0	<5.0	6,420	47.0	<5.0	6,510
	2/22/2007	3,060	81.5	82.0	8.8	<5.0	<2.0
	6/14/2007	2,850	90.0	82.5	<50.0	<50.0	<20.0
	9/20/2007	5,200	109	121	16.1	<5.0	2.0
	12/13/2007	1,440	157	930	8.8	7.4	80.0
	3/21/2008	31.0	7.6	1,700	27.0	<5.0	110
	6/5/2008	<5.0	<5.0	938	15.6	<5.0	466
	9/11/2008	<5.0	<5.0	1,870	55.2	<5.0	1,620
	11/19/2008	<5.0	<5.0	797	<5.0	<5.0	749
	3/17/2009	<5.0	<5.0	361	17.7	<5.0	1,830
	6/17/2009	<5.0	<5.0	87.1	9.4	<5.0	1,130
	8/6/2009	<5.0	<5.0	48.7	<5.0	<5.0	787
	11/3/2009	<5.0	<5.0	809	14.1	<5.0	1,510
	2/4/2010	<5.0	<5.0	555	12.4	<5.0	1,880
	4/22/2010	<5.0	7.0	1,050	23.7	<5.0	2,080
	7/22/2010	<5.0	<5.0	247	7.8	<5.0	1,680
	10/14/2010	<25.0	<25.0	665	<25.0	<25.0	2,310
	1/20/2011	<5.0	<5.0	295	13.9	<5.0	562
	5/4/2011	<5.0	<5.0	72.0	<5.0	<5.0	2,170
	7/28/2011	<5.0	<5.0	73.6	<5.0	<5.0	978
	10/24/2011	<5.0	<5.0	37.3	<5.0	<5.0	388
	2/13/2012	<5.0	<5.0	<5.0	<5.0	<5.0	330
	4/25/2012	<5.0	<5.0	11.6	<5.0	<5.0	266
	8/2/2012	<5.0	<5.0	33.7	<5.0	<5.0	405

**Table 3**  
**Cumulative Monitoring Well Groundwater Analytical Results**  
**Quarter 3 - 2012**  
**Michigan Plaza**  
**3801-3823 West Michigan Street**  
**Indianapolis, Indiana**  
**MUNDELL Project No.: M01046**

Well ID	Sample Date	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Chloroform	Vinyl chloride
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IDEML RISC Industrial Default Cleanup Level - 2006		55	31	1,000	2,000	1,000	4
IDEML RISC Residential Default Cleanup Level - 2006		5	5	70	100	80	2
MMW-P-08	2/22/2007	6,280	281	240	26.7	<5.0	<2.0
	6/14/2007	6,440	310	169	<50.0	<50.0	<20.0
	9/20/2007	9,780	494	201	25.3	<5.0	6.5
	12/14/2007	390	210	5,800	<50.0	<50.0	<20.0
	3/21/2008	6.7	11.0	6,500	130	<5.0	55.0
	6/5/2008	<5.0	<5.0	<5.0	<5.0	<5.0	562
	9/11/2008	5.8	5.0	18,300	686	<50.0	4,740
	11/19/2008	<50.0	<50.0	5,690	91.4	<50.0	13,000
	3/17/2009	<5.0	<5.0	1,130	47.1	<5.0	5,680
	6/17/2009	<125	<125	356	145	<5.0	7,200
	8/6/2009	<125	<125	601	<50.0	<50.0	8,960
	11/3/2009	<50.0	<50.0	86.7	<50.0	<50.0	2,860
	2/4/2010	<50.0	<50.0	1,140	<50.0	<50.0	4,860
	4/22/2010	<5.0	<5.0	45.7	8.1	<5.0	2,180
	7/22/2010	<5.0	<5.0	97.8	<5.0	<5.0	1,320
	10/14/2010	<25.0	<25.0	39.5	<25.0	<25.0	676
	1/20/2011	<5.0	<5.0	590	14.8	<25.0	1,770
	5/4/2011	<5.0	<5.0	288	<5.0	<5.0	2,030
	7/27/2011	<5.0	<5.0	35.9	<5.0	<5.0	274
	10/24/2011	<5.0	<5.0	32.5	<5.0	<5.0	136
	2/13/2012	<5.0	<5.0	<5.0	<5.0	<5.0	52.5
	4/25/2012	<5.0	<5.0	5.0	<5.0	<5.0	85.2
	8/2/2012	<5.0	<5.0	879	13.9	<5.0	561
MMW-P-09S	2/22/2007	10.0	<5.0	<5.0	<5.0	<5.0	<2.0
	6/14/2007	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	9/19/2007	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	12/12/2007	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	3/20/2008	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	6/5/2008	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	9/11/2008	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	11/19/2008	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	3/17/2009	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	6/16/2009	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	8/6/2009	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	11/3/2009	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	2/3/2010	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	4/22/2010	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	7/22/2010	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	10/13/2010	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	1/19/2011	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	4/30/2011	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	7/26/2011	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	10/18/2011	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	2/15/2012	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	4/24/2012	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	8/1/2012	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0

**Table 3**  
 Cumulative Monitoring Well Groundwater Analytical Results  
 Quarter 3 - 2012  
 Michigan Plaza  
 3801-3823 West Michigan Street  
 Indianapolis, Indiana  
 MUNDELL Project No.: M01046

Well ID	Sample Date	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Chloroform	Vinyl chloride
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IDEM RISC Industrial Default Cleanup Level - 2006		55	31	1,000	2,000	1,000	4
IDEM RISC Residential Default Cleanup Level - 2006		5	5	70	100	80	2
MMW-P-10S	6/14/2007	36.1	36.3	61.6	6.9	<5.0	<2.0
	7/6/2007	87.9	54.9	92.1	10.2	<5.0	<2.0
	9/19/2007	192	82.6	126	14.4	<5.0	<2.0
	12/14/2007	71.0	<5.0	<5.0	<5.0	<5.0	2.4
	3/20/2008	26.8	19.2	250	12.2	<5.0	<2.0
	6/5/2008	15.0	9.7	537	16.0	<5.0	114
	9/11/2008	74.8	36.5	1,650	74.0	<5.0	27.7
	11/19/2008	78.6	28.0	1,510	<5.0	<5.0	22.3
	3/17/2009	11.9	8.6	1,160	71.5	<5.0	<2.0
	6/17/2009	<5.0	<5.0	331	20.5	<5.0	63.9
	8/6/2009	<5.0	<5.0	158	16.1	<5.0	395
	11/3/2009	<5.0	<5.0	29.6	<5.0	<5.0	288
	2/4/2010	<5.0	<5.0	45.4	<5.0	<5.0	419
	4/22/2010	<5.0	<5.0	16.2	<5.0	<5.0	118
	7/21/2010	<5.0	<5.0	<5.0	<5.0	<5.0	16.5
	10/14/2010	<5.0	<5.0	5.4	<5.0	<5.0	381
	1/20/2011	<5.0	<5.0	11.7	<5.0	<5.0	27.8
	5/5/2011	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	7/27/2011	<5.0	<5.0	<5.0	<5.0	<5.0	12.5
	10/21/2011	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
MMW-P-12S	2/13/2012	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	4/25/2012	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	8/2/2012	<5.0	<5.0	<5.0	<5.0	<5.0	26.8
	9/9/2011	<5.0	<5.0	741	14.1	<5.0	50.8
	10/24/2011	<5.0	<5.0	642	19.2	<5.0	60.7
Deep Wells	2/15/2012	<5.0	<5.0	777	14.5	<5.0	61.4
	5/1/2012	<5.0	<5.0	454	12.4	<5.0	50.9
	8/7/2012	<5.0	<5.0	679	20.3	<5.0	51.8
	<b>Deep Wells</b>						
	11/9/2005	22.0	<5.0	42.0	<5.0	<5.0	2.0
MMW-P-03D	2/22/2007	48.9	<5.0	57.8	<5.0	39.0	15.6
	6/14/2007	21.7	<5.0	74.9	<5.0	<5.0	34.5
	9/19/2007	14.3	<5.0	76.1	7.3	<5.0	36.6
	12/13/2007	11.0	<5.0	40.0	<5.0	<5.0	20.0
	39527	<5.0	<5.0	170	6.0	<5.0	18.0
	39604	<5.0	<5.0	150	7.4	<5.0	26.0
	39702	<5.0	<5.0	95.7	6.4	<5.0	<2.0
	11/19/2008	<5.0	<5.0	80.6	<5.0	<5.0	36.9
	3/17/2009	<5.0	<5.0	65.2	<5.0	<5.0	69.8
	6/17/2009	<5.0	<5.0	14.9	5.9	<5.0	137
	8/6/2009	<5.0	<5.0	16.7	<5.0	<5.0	248
	11/3/2009	<5.0	<5.0	8.5	<5.0	<5.0	168
	2/4/2010	<5.0	<5.0	<5.0	<5.0	<5.0	287
	4/22/2010	<5.0	<5.0	7.2	<5.0	<5.0	211
	7/21/2010	6.6	<5.0	271	8.1	<5.0	305
	10/13/2010	<5.0	<5.0	<5.0	<5.0	<5.0	16.2
	1/19/2011	<5.0	<5.0	<5.0	<5.0	<5.0	46.2
	5/4/2011	<5.0	<5.0	64.3	<5.0	<5.0	118
	7/27/2011	<5.0	<5.0	<5.0	<5.0	<5.0	10.5
	10/18/2011	<5.0	<5.0	<5.0	<5.0	<5.0	61.5
	2/13/2012	<5.0	<5.0	<5.0	<5.0	<5.0	4.0
	4/25/2012	<5.0	<5.0	<5.0	<5.0	<5.0	16.6
	8/1/2012	<5.0	<5.0	<5.0	<5.0	<5.0	175

**Table 3**  
**Cumulative Monitoring Well Groundwater Analytical Results**  
**Quarter 3 - 2012**  
**Michigan Plaza**  
**3801-3823 West Michigan Street**  
**Indianapolis, Indiana**  
**MUNDELL Project No.: M01046**

Well ID	Sample Date	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Chloroform	Vinyl chloride
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IDEM RISC Industrial Default Cleanup Level - 2006		55	31	1,000	2,000	1,000	4
IDEM RISC Residential Default Cleanup Level - 2006		5	5	70	100	80	2
MMW-P-09D	6/14/2007	<5.0	<5.0	<5.0	<5.0	<5.0	46.2
	9/19/2007	<5.0	<5.0	<5.0	<5.0	<5.0	83.1
	12/12/2007	<5.0	<5.0	<5.0	<5.0	<5.0	71.0
	3/20/2008	<5.0	<5.0	<5.0	<5.0	<5.0	3.0
	6/5/2008	<5.0	<5.0	<5.0	<5.0	<5.0	100
	9/11/2008	<5.0	<5.0	<5.0	<5.0	<5.0	72.6
	11/19/2008	<5.0	<5.0	<5.0	<5.0	<5.0	97.2
	3/17/2009	<5.0	<5.0	<5.0	<5.0	<5.0	85.1
	6/16/2009	<5.0	<5.0	<5.0	<5.0	<5.0	73.5
	8/6/2009	<5.0	<5.0	<5.0	<5.0	<5.0	80.8
	11/3/2009	<5.0	<5.0	<5.0	<5.0	<5.0	87.1
	2/3/2010	<5.0	<5.0	<5.0	<5.0	<5.0	111
	4/22/2010	<5.0	<5.0	<5.0	<5.0	<5.0	76.9
	7/22/2010	<5.0	<5.0	<5.0	<5.0	<5.0	81.2
	10/13/2010	<5.0	<5.0	<5.0	<5.0	<5.0	70.6
	1/19/2011	<5.0	<5.0	<5.0	<5.0	<5.0	66.9
	4/30/2011	<5.0	<5.0	<5.0	<5.0	<5.0	74.5
	7/26/2011	<5.0	<5.0	<5.0	<5.0	<5.0	83.3
	10/21/2011	<5.0	<5.0	<5.0	<5.0	<5.0	71.9
	2/15/2012	<5.0	<5.0	<5.0	<5.0	<5.0	70.7
	4/24/2012	<5.0	<5.0	<5.0	<5.0	<5.0	56.6
	8/1/2012	<5.0	<5.0	<5.0	<5.0	<5.0	69.2
MMW-P-10D	6/14/2007	<5.0	10.6	481	7.7	<5.0	98.7
	7/6/2007	<5.0	<5.0	498	9.0	<5.0	118
	9/19/2007	<5.0	<5.0	350	<5.0	<5.0	76.1
	12/14/2007	<5.0	<5.0	270	<5.0	<5.0	77.0
	3/20/2008	<5.0	<5.0	<5.0	<5.0	<5.0	3.0
	6/5/2008	<5.0	<5.0	508	<5.0	<5.0	267
	9/11/2008	<5.0	<5.0	435	<5.0	<5.0	288
	11/19/2008	<5.0	<5.0	3,390	<5.0	<5.0	5,030
	3/17/2009	<5.0	<5.0	4,860	12.9	<5.0	2,500
	6/17/2009	<5.0	<5.0	3,710	9.6	<5.0	9,070
	8/6/2009	<5.0	<5.0	2,520	5.1	<5.0	3,400
	11/3/2009	<5.0	<5.0	2,740	<5.0	<5.0	3,500
	2/4/2010	<5.0	<5.0	406	<5.0	<5.0	2,130
	4/22/2010	<5.0	<5.0	30.5	<5.0	<5.0	364
	7/22/2010	<5.0	<5.0	120	<5.0	<5.0	865
	10/14/2010	<25.0	<25.0	<25.0	<25.0	<25.0	707
	1/20/2011	<5.0	<5.0	21.4	<5.0	<5.0	1,210
	5/5/2011	<5.0	<5.0	8.1	<5.0	<5.0	272
	7/27/2011	<5.0	<5.0	46.5	<5.0	<5.0	825
	10/21/2011	<5.0	<5.0	<5.0	<5.0	<5.0	444
	2/13/2012	<5.0	<5.0	28.7	<5.0	<5.0	1,790
	4/25/2012	<5.0	<5.0	<5.0	<5.0	<5.0	289
	8/2/2012	<5.0	<5.0	<5.0	<5.0	<5.0	475
MMW-P-12D	9/9/2011	<5.0	<5.0	678	15.9	<5.0	63.0
	10/24/2011	<5.0	<5.0	644	14.2	<5.0	71.3
	2/15/2012	<5.0	<5.0	727	15.0	<5.0	65.1
	5/1/2012	<5.0	<5.0	591	15.2	<5.0	69.4
	8/7/2012	<5.0	<5.0	750	18.8	<5.0	67.6
<b>ENVIRON Monitoring Wells (Off-site)</b>							
Shallow Wells							
MW-167S	11/7/2005	<5.0	<5.0	<5.0	<5.0	<5.0	14.0
	2/21/2007	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	6/5/2008	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	6/17/2009	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	4/21/2010	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	4/29/2011	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	5/2/2012	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0

**Table 3**  
**Cumulative Monitoring Well Groundwater Analytical Results**  
**Quarter 3 - 2012**  
**Michigan Plaza**  
**3801-3823 West Michigan Street**  
**Indianapolis, Indiana**  
**MUNDELL Project No.: M01046**

Well ID	Sample Date	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Chloroform	Vinyl chloride
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IDEM RISC Industrial Default Cleanup Level - 2006		55	31	1,000	2,000	1,000	4
IDEM RISC Residential Default Cleanup Level - 2006		5	5	70	100	80	2
MW-168S	11/7/2005	280	16.0	53.0	<5.0	<5.0	3.0
	2/21/2007	30.1	8.8	155	<5.0	<5.0	29.6
	6/14/2007	<5.0	<5.0	40.8	<5.0	<5.0	34.0
	9/19/2007	32.6	8.0	82.4	<5.0	<5.0	3.5
	12/13/2007	52.0	14.0	78.0	<5.0	<5.0	4.1
	3/20/2008	92.0	12.0	46.0	<5.0	<5.0	4.2
	6/5/2008	80.4	10.1	41.1	<5.0	<5.0	3.6
	9/11/2008	68.5	10.8	66.9	<5.0	<5.0	5.5
	8/7/2009	62.6	10.2	118	<5.0	NS	9.9
	4/21/2010	14.0	7.0	21.9	<5.0	<5.0	<2.0
MW-169S	2/21/2007	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	11/7/2005	<5.0	<5.0	<5.0	<5.0	NA	<2.0
	6/5/2008	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	4/21/2010	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	4/29/2011	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
MW-170S	2/21/2007	<5.0	<5.0	<5.0	<5.0	<5.0	21.2
	6/3/2008	<5.0	<5.0	<5.0	<5.0	<5.0	5.5
	6/17/2009	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	4/21/2010	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	4/29/2011	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	2/16/2012	<5.0	<5.0	6.3	<5.0	<5.0	<2.0
	5/2/2012	<5.0	<5.0	6.0	<5.0	<5.0	<2.0
	8/3/2012	<5.0	<5.0	7.9	<5.0	<5.0	<2.0
MW-171S	2/21/2007	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	6/3/2008	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	4/21/2010	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	4/29/2011	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	5/2/2012	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
<i>Deep Wells</i>							
MW-165D	7/7/2010	<5.0	<5.0	122	<5.0	<5.0	202
MW-167D	11/7/2005	<5.0	<5.0	750	<5.0	<5.0	110
	2/21/2007	<5.0	<5.0	375	10.0	<5.0	59.3
	6/5/2008	<5.0	<5.0	616	28.0	<5.0	43.8
	6/17/2009	<5.0	<5.0	612	22.1	<5.0	23.8
	4/21/2010	<5.0	<5.0	626	22.1	<5.0	25.6
	4/29/2011	<5.0	<5.0	392	18.9	<5.0	14.9
	2/16/2012	<5.0	<5.0	541	<5.0	<5.0	20.0
	5/2/2012	<5.0	<5.0	377	16.9	<5.0	21.7
	8/3/2012	<5.0	<5.0	422	26.4	<5.0	8.4
MW-168D	11/7/2005	<5.0	<5.0	6.8	<5.0	<5.0	49.0
	2/21/2007	<5.0	<5.0	8.4	<5.0	<5.0	58.1
	6/14/2007	<5.0	<5.0	5.2	<5.0	<5.0	47.5
	9/19/2007	<5.0	<5.0	<5.0	<5.0	<5.0	89.7
	12/12/2007	<5.0	<5.0	<5.0	<5.0	<5.0	74.0
	3/20/2008	<5.0	<5.0	8.0	<5.0	<5.0	39.0
	6/5/2008	<5.0	<5.0	13.4	<5.0	<5.0	65.9
	9/11/2008	<5.0	<5.0	5.5	<5.0	<5.0	<2.0
	3/17/2009	<5.0	<5.0	16.5	<5.0	<5.0	<2.0
	6/18/2009	<5.0	<5.0	<5.0	<5.0	<5.0	14.5
	8/7/2009	<5.0	<5.0	<5.0	<5.0	<5.0	36.2
	11/4/2009	<5.0	<5.0	<5.0	<5.0	<5.0	99.1
	2/4/2010	<5.0	<5.0	6.3	<5.0	<5.0	128
	4/21/2010	<5.0	<5.0	13.2	<5.0	<5.0	134
	7/22/2010	<5.0	<5.0	6.0	<5.0	<5.0	122
	10/13/2010	<5.0	<5.0	<5.0	<5.0	<5.0	134
	4/29/2011	<5.0	<5.0	<5.0	10.0	<5.0	96.4
	7/28/2011	<5.0	<5.0	<5.0	<5.0	<5.0	228
	10/24/2011	<5.0	<5.0	8.9	<5.0	<5.0	137
	2/16/2012	<5.0	<5.0	<5.0	<5.0	<5.0	108
	5/2/2012	<5.0	<5.0	<5.0	<5.0	<5.0	130
	8/3/2012	<5.0	<5.0	<5.0	<5.0	<5.0	104

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**Cumulative Monitoring Well Groundwater Analytical Results**  
**Quarter 3 - 2012**  
**Michigan Plaza**  
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**MUNDELL Project No.: M01046**

Well ID	Sample Date	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Chloroform	Vinyl chloride
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IDEM RISC Industrial Default Cleanup Level - 2006		55	31	1,000	2,000	1,000	4
IDEM RISC Residential Default Cleanup Level - 2006		5	5	70	100	80	2
MW-169D	2/21/2007	<5.0	<5.0	<5.0	<5.0	<5.0	11.9
	11/7/2005	<5.0	<5.0	<5.0	<5.0	NA	5.1
	6/5/2008	<5.0	<5.0	<5.0	<5.0	<5.0	14.3
	4/21/2010	<5.0	<5.0	<5.0	<5.0	<5.0	6.1
	4/29/2011	<5.0	<5.0	<5.0	<5.0	<5.0	9.1
	5/2/2012	<5.0	<5.0	<5.0	<5.0	<5.0	27.1
MW-170D	2/21/2007	<5.0	<5.0	<5.0	<5.0	<5.0	105
	6/3/2008	<5.0	<5.0	<5.0	<5.0	<5.0	230
	6/17/2009	<5.0	<5.0	<5.0	<5.0	<5.0	174
	4/21/2010	<5.0	<5.0	<5.0	<5.0	<5.0	161
	7/7/2010	<5.0	<5.0	<5.0	<5.0	<5.0	233
	4/29/2011	<5.0	<5.0	<5.0	<5.0	<5.0	100
	2/16/2012	<5.0	<5.0	<5.0	<5.0	<5.0	88.8
	5/2/2012	<5.0	<5.0	<5.0	<5.0	<5.0	91.0
	8/3/2012	<5.0	<5.0	<5.0	<5.0	<5.0	77.2
MW-171D	2/21/2007	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	6/3/2008	<5.0	<5.0	<5.0	<5.0	<5.0	3.0
	6/16/2009	<5.0	<5.0	<5.0	<5.0	<5.0	2.2
	4/21/2010	<5.0	<5.0	<5.0	<5.0	<5.0	6.3
	7/22/2010	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	4/29/2011	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	5/2/2012	<5.0	<5.0	<5.0	<5.0	<5.0	9.5
<b>Floral Park Cemetery Wells (Off-site)</b>							
<b>Shallow Wells</b>							
MMW-C-01	11/20/2008	15.7	8.3	296	<5.0	<5.0	<2.0
	3/17/2009	<5.0	<5.0	508	7.3	<5.0	<2.0
	6/18/2009	23.2	<5.0	<5.0	<5.0	<5.0	<2.0
	8/6/2009	84.8	<5.0	66.9	<5.0	<5.0	35.2
	11/3/2009	12.6	<5.0	211	8.9	<5.0	2,720
	2/3/2010	<5.0	<5.0	176	10.1	<5.0	1,790
	4/21/2010	15.3	<5.0	165	7.1	<5.0	1,660
	7/22/2010	40.9	<5.0	22.4	<5.0	<5.0	8.1
	10/14/2010	<5.0	<5.0	69.1	<5.0	<5.0	1,100
	1/19/2011	<5.0	<5.0	14.7	<5.0	<5.0	215
	5/5/2011	22.2	<5.0	<5.0	<5.0	<5.0	<2.0
	7/27/2011	36.7	<5.0	17.1	<5.0	<5.0	150
	10/21/2011	18.7	<5.0	20.6	<5.0	<5.0	59
	2/15/2012	23.8	<5.0	6.0	<5.0	<5.0	21
	4/24/2012	11.9	<5.0	10.6	<5.0	<5.0	45.3
MMW-C-02S*	8/1/2012	<5.0	<5.0	8.9	<5.0	<5.0	29.2
	11/20/2008	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	3/17/2009	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	6/18/2009	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	8/6/2009	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	11/3/2009	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	2/3/2010	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	4/21/2010	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	7/22/2010	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	10/13/2010	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	1/19/2011	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	4/30/2011	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	7/27/2011	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	10/18/2011	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	2/15/2012	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	4/24/2012	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	8/1/2012	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
MMW-C-16S	8/6/2012	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
MMW-P-11S	9/9/2011	76.1	<5.0	5.9	<5.0	<5.0	9.1
	10/24/2011	592	<5.0	<5.0	<5.0	<5.0	2.5
	2/15/2012	658	<5.0	<5.0	<5.0	<5.0	2.3
	5/1/2012	351	<5.0	9.1	<5.0	<5.0	8.5
	8/8/2012	88.1	<5.0	14.7	<5.0	<5.0	11.4

**Table 3**  
**Cumulative Monitoring Well Groundwater Analytical Results**  
**Quarter 3 - 2012**  
**Michigan Plaza**  
**3801-3823 West Michigan Street**  
**Indianapolis, Indiana**  
**MUNDELL Project No.: M01046**

Well ID	Sample Date	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Chloroform	Vinyl chloride
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
IDEM RISC Industrial Default Cleanup Level - 2006		55	31	1,000	2,000	1,000	4
IDEM RISC Residential Default Cleanup Level - 2006		5	5	70	100	80	2
MMW-P-13S	9/9/2011	<5.0	<5.0	<5.0	<5.0	<5.0	8.3
	10/24/2011	<5.0	<5.0	<5.0	<5.0	<5.0	19.8
	2/16/2012	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	4/26/2012	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	8/7/2012	<5.0	<5.0	<5.0	<5.0	<5.0	8.9
MMW-P-14S	2/16/2012	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	4/26/2012	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	8/7/2012	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
<i>Deep Wells</i>							
MMW-C-02D*	2/15/2012	<5.0	<5.0	<5.0	<5.0	<5.0	30.7
	4/26/2012	<5.0	<5.0	<5.0	<5.0	<5.0	55.1
	8/8/2012	<5.0	<5.0	<5.0	<5.0	<5.0	95.1
MMW-C-16D	8/6/2012	<5.0	<5.0	<5.0	<5.0	<5.0	224
MMW-C-17D	8/8/2012	<5.0	<5.0	<5.0	<5.0	<5.0	2.7
MMW-P-11DR	2/15/2012	<5.0	<5.0	8.4	<5.0	<5.0	95.1
	5/1/2012	<5.0	<5.0	8.5	<5.0	<5.0	102
	8/7/2012	<5.0	<5.0	11.7	<5.0	<5.0	102
MMW-P-13D	9/9/2011	<5.0	<5.0	<5.0	<5.0	<5.0	139
	10/24/2011	<5.0	<5.0	<5.0	<5.0	<5.0	116
	2/16/2012	<5.0	<5.0	<5.0	<5.0	<5.0	155
	4/26/2012	<5.0	<5.0	<5.0	<5.0	<5.0	132
	8/7/2012	<5.0	<5.0	<5.0	<5.0	<5.0	167
MMW-P-14D	2/16/2012	<5.0	<5.0	<5.0	<5.0	<5.0	49.6
	4/26/2012	<5.0	<5.0	<5.0	<5.0	<5.0	49.5
	8/7/2012	<5.0	<5.0	<5.0	<5.0	<5.0	58.1

Notes:

All Values Over IDEM RISC Default Industrial Cleanup Level in **RED**.

All Values Over IDEM RISC Default Residential Cleanup Level in **BLUE**.

PCE = Tetrachloroethene; TCE = Trichloroethene; cis-1,2-DCE = cis-1,2-Dichloroethene; trans-1,2-DCE = trans-1,2-Dichloroethene.

Green Shading indicates areas that appear to be undergoing reductive dechlorination due to CAP-18 Injections.

"J" designation indicates concentration was estimated due to high concentration of one parameter requiring dilution on other parameter quantitations.

All analytical results presented in micrograms per liter (ug/L).

\*MMW-C-02 is now known as MMW-C-02S and MMW-C-02D is a new well.

**Table 4**  
Cumulative Groundwater Analytical Data for Enhanced Anaerobic Bioremediation  
Quarter 3 - 2012  
Michigan Plaza  
3801-3823 West Michigan Street  
Indianapolis, Indiana  
MUNDELL Project No.: M01046

Well ID	Sample Date	pH	Dissolved Oxygen	Oxidation Reduction Potential	Conductivity	Nitrogen, Nitrate	Nitrogen, Nitrite	Iron	Total Organic Carbon	Sulfate	Acetic Acid	Butyric Acid	Hexanoic Acid	i-Hexanoic Acid	i-Pentanoic Acid	Lactic Acid and HIBA	Pentanoic Acid	Propionic Acid	Pyruvic Acid	Ethane	Ethene	Methane
		-	ug/L	mV	uS/cm															ug/l		
		FIELD MEASUREMENTS											LAB RESULTS									
MMW-1S	2/22/2007	8.00	4,800	290	920.0																	
	9/19/2007	7.20	3,100	240	1100.0																	
	12/13/2007	6,400		430	910.0																	
	3/21/2008		1,650	230	3752.6	8.3				37.5												
	6/3 & 6/6/2008		1,286		3346.1	2.5				36.6	9.0	0.14	0.35	<0.10	<0.070	0.35	<0.070	1.4	<0.070	<0.025	<0.025	270
	9/11/2008					5.8				95.0												
	11/20/2008	6.80	824	533	3044.0	<0.10				71.3												
	3/16/2009	6.70	4,879	484	2794.0	7.3				67.6												
	6/16/2009					9.3				42.8												
	8/5/2009					<0.10				150												
	11/2/2009	6.68	1,900	-28	1235.4	<0.10				12.4										0.12	0.18	14,000
	2/3/2010	6.68	5,359	-47	1163.7	<0.10				13.3										0.086	0.10	18,000
	4/22/2010	6.78	2,753	-43	1309.1	9.6				33.6												
	7/21 & 7/22/2010	6.56	2,413	18	1543.3	5.6				51.4												
	10/12/2010	6.61	5,576	-229	1518.3	<0.10				60.0												
	1/19/2011	6.84	2,245		1190.3	<0.10				76.4	<0.070	<0.050	<0.050	<0.050	<0.15	<0.10	<0.070	<0.050	<0.15			
	5/4/2011	6.77	2,771	-79	1258.1	19.3	<0.10	0.0	1.8	35.0	0.12	<0.050	<0.050	<0.15	0.38	<0.070	0.072	<0.15	<0.025	0.048	12,000	
	7/28/2011	6.56	730	-179	1474.0	<0.10	<0.10	0.0	3.1	96.0	0.25	0.092	<0.050	<0.15	0.87	<0.070	0.068	<0.15	<0.025	0.160	9,000	
	10/19/2011	6.76	170	-60	1172.0	<0.10	<0.10	2.3	1.7	56.2	0.083	<0.050	<0.050	<0.15	<0.10	<0.070	0.064	<0.15	0.029	0.280	13,000	
	2/14/2012	6.78	2,024	71	1066.0	45.0	<0.80	0.0	2.6	40.8	0.010 J	<0.050	<0.050	<0.15	0.067 J	<0.070	<0.050	<0.15	0.039	0.099	200	
	4/25/2012	6.62	341	30	1198.0	19.9	<0.40	0.0	2.6	51.0	0.042 J	<0.050	<0.050	0.910	<0.15	0.14	<0.070	<0.050	<0.15	0.011 J	2.5	9,000
	8/2/2012	6.73	113	9	1054.0	<0.10			0.2	2.3	122	0.013 J	<0.050	<0.050	<0.15	0.071 J	<0.070	<0.050	<0.15	0.024 J	1.9	15,000
*MMW-2S	6/2/2008	7.03				867.7																
	4/22/2010	7.16	7,865	107	786.4																	
	4/30/2011	7.29	9,482	21	619.5																	
	4/23/2012	7.19	5,290	61	694.0																	
*MMW-3S	6/6/2008	7.02	505		2673.1																	
	4/20/2010	7.21	454	75	932.6																	
	5/4/2011	7.17	587	-228	892.3																	
	4/23/2012	7.15	1,018	-54	893.3																	
*MMW-4D	6/2/2008	6.95	153		1541.2																	
	4/20/2010	7.06	379	0	1209.8																	
	4/29/2011	7.07	764	-104	1227.6																	
	2/14/2012	7.08	595	-71	1117.0																	
	4/23/2012	7.15	242	-110	1290.0																	
	7/31/2012	7.06	181	-90	1530.0																	
*MMW-5D	6/2/2008	7.14			1090.6																	
	4/20/2010	7.13	304	126	1064.0																	
	4/29/2011	7.31	266	-233	1472.3																	
	4/23/2012	7.53	243	-116	667.8																	
*MMW-6D	6/6/2008	7.42	514		2907.3																	
	4/20/2010	7.41	362	51	1060.9																	
	4/29/2011	7.32	142	-251	1238.8																	
	2/14/2012	7.19	671	-34	697.9																	
	4/23/2012	7.45	95	-100	733.1																	
	7/31/2012	7.32	153	-136	767.3																	
	6/6/2008	6.38	441		3119.3																	
*MMW-7S	4/20/2010	6.84	637	200	1013.2																	
	5/4/2011	6.85	1,321	-205	1080.1																	
	4/26/2012	7.14	36	-114	632.9																	
	9/19/2007	7.70	2,300	-43	780.0																	
MMW-8S	12/13/2007	6.00		220	1.5																	
	3/20/2008	180			0.3																	
	6/6/2008	1,271			3385.2																	
	11/20/2008	7.05	487	515	2761.4																	
	3/16/2009	6.58	2,188	698	2647.0																	
	8/5/2009	7.08	2,439	-160	1024.3																	
	11/2/2009	7.02	1,805	-71	955.4																	
	2/3/2010	7.00	4,638	-49	840.9																	
	4/22/2010	7.06	1,303	-47	891.8																	
	7/21/2010	6.95	1,709	-32	995.1																	
	10/12/2010	7.06	124	-274	879.8																	
	1/19/2011	6.71	969		1002.3																	
	4/30/2011	6.83	200	-164	1905.7	16.3	<0.40	2.5	2.2	108	0.10	<0.050	<0.050	<0.15	0.22	<0.070	0.065	<0.15	0.07	33.0	7,600	
	7/28/2011	6.58	2,202	-47	2259.3	<0.10	<0.10	3.5	1.1	227	<0.070	<0.050	<0.050	<0.15	0.20	<0.070	<0.050	<0.15	0.16	26.0	8,500	
	10/24/2011	7.01	190	-90	1016.0	<0.10	<0.10	3.8	1.4	250	<0.070	<0.050	<0.050	<0.15	0.45	<0.070	<0.050	<0.15	0.18	78.0	20,000	
	2/14/2012	7.00	140	-106	970.1	<0.10	<0.10	5.1	1.6	213	0.017 J	<0.050	<0.050	<0.15	0.030 J	<0.070	<0.050	<0.15	0.10	27	14,000	
	4/25/2012	6.93	90	-200	986.5	<0.10	<0.10	5.0	1.6	152	0.037 J	0.054	<0.050	<0.15	0.096 J	<0.070	<0.050	<0.15	0.094	28	12,000	
	8/2/2012	6.97	74	-97	1099.0	<0.10				3.4	1.9	160	0.0075 J	<0.050	<0.050	<0.15	<0.10	<0.070	<0.050	<0.15	0.093	19

**Table 4**  
**Cumulative Groundwater Analytical Data for Enhanced Anaerobic Bioremediation**  
**Quarter 3 - 2012**  
**Michigan Plaza**  
**3801-3823 West Michigan Street**  
**Indianapolis, Indiana**  
**MUNDELL Project No.: M01046**

Well ID	Sample Date	pH	Dissolved Oxygen	Oxidation Reduction Potential	Conductivity	Nitrogen, Nitrate	Nitrogen, Nitrite	Iron	Total Organic Carbon	Sulfate	Acetic Acid	Butyric Acid	Hexanoic Acid	i-Hexanoic Acid	i-Pentanoic Acid	Lactic Acid and HIBA	Pentanoic Acid	Propionic Acid	Pyruvic Acid	Ethane	Ethene	Methane	
		-	ug/L	mV	uS/cm	mg/L												ug/l					
		FIELD MEASUREMENTS												LAB RESULTS									
MMW-9S	9/20/2007	7.70	3,000	260	1500.0																		
	12/12/2007	9,300	180	1300.0																			
	3/21/2008	44	918	5173.4																			
	6/6/2008	6.86			1223.7	<0.10					154	3.0	<0.070	<0.10	<0.10	<0.070	0.28	<0.070	1.1	0.22	0.10	0.48	4,400
	9/11/2008					<0.10					152												
	11/20/2008	6.49	419	558	4141.3	<0.10					98.5												
	3/16/2009	6.77	4,601	222	3678.1	<0.10					74.2												
	6/16/2009					12.0	<0.10				237												
	8/5/2009						<0.10				208												
	11/2/2009	6.56	1,861	35	1396.4	<0.10					135									0.13	160	6,200	
	2/3/2010	6.55	5,596	11	1372.2	<0.10					116									0.12	150	9,400	
	2/4/2010																						
	4/22/2010	6.57	1,456	-61	2012.4	<0.10					94.0												
	7/21/2010	6.58	3,403	-60	1485.9	<0.10					125												
	10/12/2010	6.56	564	-308	1540.1	<0.10					122												
	1/19/2011	6.90	2,815		1500.3	0.22					83.2	<0.070	<0.050	<0.050	<0.050	<0.15	0.21 B	<0.070	<0.050	<0.15			
	5/4/2011	6.69	235	-255	1878.6	<0.10	<0.10	6.0	3.8	189	0.094	<0.050	<0.050	<0.050	<0.15	0.34	<0.070	0.06	<0.15	1.5	82.0	12,000	
	7/27/2011	6.52	434	-187	1835.3	<0.10	<0.10	3.2	1.7	217	<0.070	<0.050	<0.050	<0.050	<0.15	0.27	<0.070	<0.050	<0.15	1.6	48.0	16,000	
	10/24/2011	6.62	180	-40	2035.0	<0.10	<0.10	2.3	2.6	164	0.078	<0.050	<0.050	<0.050	<0.15	0.15	<0.070	0.075	<0.15	22.0	1.9	7,000	
	2/13/2012	6.67	103	-180	1671.0	<0.10	0.14	3.8	4.4	125	0.013 J	<0.050	<0.050	<0.050	<0.15	0.034 J	<0.070	<0.050	<0.15	2.0	65.0	12,000	
	4/25/2012	6.64	123	-160	1864.0	<0.10	<0.10	3.0	3.8	176	0.052 J	<0.050	<0.050	<0.050	<0.15	0.13	<0.070	0.016 J	<0.15	2.0	36	7,400	
	8/2/2012	6.58	38	-129	1448.0	<0.10					4.0	90.5	0.036J	<0.050	<0.050	<0.15	0.070J	<0.070	<0.050	<0.15	0.8	28	17,000
MMW-10S	9/19/2007	7.40	1,900	260	1400.0																		
	12/12/2007	6,000	250	1300.0																			
	3/21/2008	109			5514.0																		
	6/6/2008	6.70	230		1604.6																		
	9/10/2008	6.46	308		4517.3																		
	11/20/2008	6.61	545	585	4320.5																		
	3/16/2009	6.93	5,003	159	3510.4																		
	11/2/2009	6.64	1,970	-15	1683.6																		
	2/3/2010	6.63	5,474	-43	1547.1																		
	4/22/2010	6.61	1,396	-91	1835.1																		
	7/20/2010	6.62	2,423	-56	1806.6																		
	10/12/2010	6.64	951	-261	1852.2																		
	1/19/2011	6.91	2,654		1523.3																		
	5/4/2011	6.67	243	-247	1630.2	<0.10	<0.10	4.5	3.0	368	0.083	<0.070	<0.10	<0.10	<0.070	0.40	<0.070	0.063	<0.15	0.028	14.0	9,700	
	7/27/2011	6.58	513	-158	1,734.6	<0.10	<0.10	3.0	3.4	414	<0.070	<0.070	<0.10	<0.10	0.150	0.28	<0.070	0.049	<0.15	0.15	29.0	13,000	
	10/19/2011	6.73	200	-70	1,646.0	<0.10	<0.10	2.9	2.6	130	<0.070	<0.070	<0.10	<0.10	<0.070	0.12	<0.070	0.069	<0.15	0.084	12.0	10,000	
	2/14/2012	6.71	169	-81	1,730.0	<0.10	<0.10	4.9	4.3	285	0.016 J	<0.070	<0.050	<0.050	<0.15	0.034 J	<0.070	<0.050	<0.15	0.11	21	12,000	
	4/24																						

**Table 4**  
Cumulative Groundwater Analytical Data for Enhanced Anaerobic Bioremediation  
Quarter 3 - 2012  
Michigan Plaza  
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Cumulative Groundwater Analytical Data for Enhanced Anaerobic Bioremediation  
Quarter 3 - 2012  
Michigan Plaza  
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Well ID	Sample Date	pH	Dissolved Oxygen	Oxidation Reduction Potential	Conductivity	Nitrogen, Nitrate	Nitrogen, Nitrite	Iron	Total Organic Carbon	Sulfate	Acetic Acid	Butyric Acid	Hexanoic Acid	i-Hexanoic Acid	i-Pentanoic Acid	Lactic Acid and HIBA	Pentanoic Acid	Propionic Acid	Pyruvic Acid	Ethane	Ethene	Methane	
		-	ug/L	mV	uS/cm															ug/l			
		FIELD MEASUREMENTS										LAB RESULTS											
MMW-P-04	3/20/2008		233		0.3																		
	6/5/2008	6.87				1416.9																	
	9/11/2008	7.03				0.5																	
	11/19/2008	6.96	811																				
	2/12/2010	6.89	1,005	199	827.4																		
	4/21/2010	6.95	237	-47	808.1																		
	7/22/2010	6.74	3,591	-40	964.2																		
	10/13/2010	6.68	869	-203	1025.3																		
	5/5/2011	7.07	1,389	-185	1036.9	1.2	0.18	0.0	43.0	26.9	2.3	0.10	0.64	0.24	<0.070	1.4	<0.070	0.46	<0.15	0.044	11.0	10,000	
	7/28/2011	6.67	1,011	-174	1363.1	<0.10	<0.10	4.7	18.1	<0.10	24	0.22	<0.050	<0.050	<0.15	<1.0	<0.070	1.7	<0.15	0.44	570	18,000	
	10/24/2011	6.87	520	-150	874.0	<0.10	<0.10		11.6	39.8	5.0	0.11	<0.050	<0.050	<0.15	0.3	<0.070	0.31	<0.15	1.7	26.0	18,000	
	2/17/2012	6.81	990	-200	694.8	<0.10	<0.10	2.5	5.5	<5.0	1.6	0.072	<0.050	<0.050	<0.15	0.2	<0.070	0.33	<0.15	0.2	6.4	19,000	
	5/1/2012	6.70	994	-202	769.2	<0.10	<0.10	2.1	4.2	15.4	1.4	0.053	<0.050	<0.050	<0.15	<1.0	<0.070	0.29 J	<0.15	0.1	3.2	19,000	
	8/8/2012	Insufficient water to sample																					
MMW-P-05	3/20/2008					6086.2																	
	6/5/2008	6.86				1150.6																	
	9/11/2008	7.06				0.3																	
	11/19/2008	6.79	870	3,652																			
	3/17/2009	6.61	864	838	2669.5																		
	11/3/2009	6.98	1,842	-70	1036.9																		
	2/4/2010	6.98	724	-83	787.2																		
	4/22/2010	6.99	1,663	-26	1003.1																		
	7/21/2010	6.88	2,067	-80	1101.5																		
	10/13/2010	6.93	250	-240	917.8																		
	1/20/2011	6.69	174		987.9																		
	4/30/2011	6.99	209	-257	1036.9															0.025	58.0	9,900	
	7/27/2011	6.80	607	-184	1436.7															0.23	1,300	15,000	
	10/19/2011	7.11	230	-120	559.7															0.12	93.0	3,700	
	2/13/2012	6.99	112	-286	822.8	<0.10	<0.10	1.9	19.0	59.5	4.2	0.066	<0.050	<0.050	0.055 J	<1.0	<0.070	0.26 J	<0.15	0.20	63	11,000	
MMW-P-06	4/25/2012	7.00	65	-251	734.1	<0.10	<0.10	3.0	3.8	46	0.3	<0.050	<0.050	<0.050	<0.15	0.15	<0.070	0.034 J	<0.15	0.20	51	7,200	
	8/2/2012	7.21	60	-124	466.5	<0.10		1.2	1.5	39.1	0.013J	<0.050	<0.050	<0.050	<0.15	0.11J	<0.070	<0.050	<0.15	0.21	15	1,800	
	3/20 & 3/21/2008		29	900	4293.5						62.6												
	6/5 & 6/6/2008	7.07				980.4	<0.10				30.5	60.0	1.7	<0.10	<0.10	0.21	1.4	1.2	29.0	0.44	0.47	0.54	290
	9/1/2008	6.82				0.7	<0.10				39.1												
	11/19/2008	6.85	715			<0.10					130												
	3/17/2009	6.69	1,063	710	3884.4		<0.10				9.4												
	6/17/2009					<0.10					61.7												
	8/6/2009					<0.10					29.7												
	11/3/2009	6.89	1,631	-105	1276.4	<0.10					73.2									1.9	200	18,000	
	2/4/2010	7.04	725	-86	927.1	<0.10					10.3									0.66	300	15,000	
	4/22/2010	6.93	1,405	-106	1129.2	0.10					15.3												
	7/21/2010	6.96	2,001	-112	1448.3	<0.10					38.7												
	10/14/2010	6.94	162	-121	1194.9																		
	1/20/2011	6.80	1,062		1263.5	<0.10					65.8	<0.070	<0.050	<0.050	<0.050	<0.15	<0.10	<0.070	<0.050	<0.15			
	5/4/2011	6.89	225	-296	1338.1															0.51	2,400	17,000	
	7/28/2011	6.85	812	-198	1302.6															0.92	3,700	20,000	
	10/24/2011	6.92	160	-90	1169.0															0.78	2,500	14,000	
	2/13/2012	6.90	141	-213	1132.0	<0.10	<0.10	2.0	3.9	38.0	0.370	<0.050	<0.050	<0.050	<0.15	0.048 J	<0.070	<0.050	<0.15	0.87	1,800	17,000	
	4/26/2012	6.64	71	-231	172.0	<0.10	<0.10	3.25	4.4	65.5	1,200	<0.050	<0.050	<0.050	<0.15	0.240	<0.070	0.031	<0.15	1.0	1,300	17,000	
	8/2/2012	6.85	74	-96	1283.0	<0.10		2.8	3.7	54.5	0.069J	<0.050	<0.050	<0.050	<0.15	<0.10	<0.010	<0.050	<0.15	0.9	1,100	15,000	

**Table 4**  
**Cumulative Groundwater Analytical Data for Enhanced Anaerobic Bioremediation**  
**Quarter 3 - 2012**  
**Michigan Plaza**  
**3801-3823 West Michigan Street**  
**Indianapolis, Indiana**  
**MUNDELL Project No.: M01046**

Well ID	Sample Date	pH	Dissolved Oxygen	Oxidation Reduction Potential	Conductivity	Nitrogen, Nitrate	Nitrogen, Nitrite	Iron	Total Organic Carbon	Sulfate	Acetic Acid	Butyric Acid	Hexanoic Acid	i-Hexanoic Acid	i-Pentanoic Acid	Lactic Acid and HIBA	Pentanoic Acid	Propionic Acid	Pyruvic Acid	Ethane	Ethene	Methane
		-	ug/L	mV	uS/cm	mg/L												ug/l				
		FIELD MEASUREMENTS												LAB RESULTS								
MMW-P-07	3/21/2008		9	937	6055.8																	
	6/7/2008		1,200		5032.7																	
	9/11/2008	6.74			0.7																	
	11/19/2008	6.53	846																			
	3/17/2009	6.83	880	745	4022.3																	
	11/3/2009	6.62	1,745	-72	2224.1																	
	2/4/2010	6.72	721	-92	1800.3																	
	4/22/2010	6.68	1,400	-154	1924.8																	
	7/22/2010	6.60	3,369	-55	1605.5																	
	10/14/2010	6.59	359	-148	2187.6																	
	1/20/2011	6.74	1,377		1347.0																	
	5/4/2011	6.67	349	-242	1632.1	<0.10	<0.10	3.0	3.9	97.5	2.0	<0.050	<0.050	<0.050	<0.15	0.50	<0.070	0.15	<0.15	0.049	520	6,000
	7/28/2011	8.33	765	-161	2098.5	<0.10	<0.10	3.8	4.0	33.1	3.9	0.14	<0.050	<0.050	<0.15	0.98	<0.070	0.23	<0.15	0.12	480	8,100
	10/24/2011	6.66	110	-60	1492.0	<0.10	<0.10	3.8	2.1	31.6	0.078	<0.050	<0.050	<0.050	<0.15	0.46	<0.070	0.071	<0.15	0.31	330	12,000
	2/13/2012	6.79	541	-167	1754.0	<0.10	<0.10	2.9	3.3	82.5	0.52	0.041 J	<0.050	<0.050	<0.15	0.023 J	<0.070	<0.050	<0.15	0.26	190	12,000
	4/25/2012	6.69	77	-209	1841.0	<0.10	<0.10	4.25	3.3	73.5	0.020 J	<0.050	<0.050	<0.050	<0.15	0.051 J	<0.070	<0.050	<0.15	0.28	360	8,900
	8/2/2012	6.71	84	-96	1747.0	<0.10		4.60	3.5	30.5	0.033J	<0.050	<0.050	<0.050	<0.15	0.037J	<0.070	<0.050	<0.15	0.46	95	16,000
MMW-P-08	3/20 & 3/21/2008	2.29	245		3645.7					129												
	6/5 & 6/6/2008	7.00			1118.2	0.12				<5.0	0.12	<0.070	<0.10	<0.10	<0.070	0.22	<0.070	<0.070	<0.070	0.30	2.0	2,800
	9/10 & 9/11/2008	7.29	467		0.3	<0.10				<5.0												
	11/19/2008	7.00	1,129			<0.10				7.2												
	3/17/2009	6.77	876	674	4083.5	<0.10				5.1												
	6/17/2009					<0.10				5.0												
	8/6/2009					<0.10				38.3												
	11/3/2009	6.52	1,676	-74	1547.6	<0.10				23.6										0.081	320	8,000
	2/4/2010	6.63	631	-86	1629.4					<5.0										0.075	640	17,000
	4/22/2010	6.74	1,408	-202	1804.3	<0.10				8.5												
	7/22/2010	6.79	3,994	-70	939.3	<0.10				34.0												
	10/14/2010	6.65	395	-175	1923.7	<0.10				<5.0												
	1/20/2011	6.79	1,907		1965.5	<0.10				21.0	19.0	0.27	<0.050	<0.050	<0.15	<0.10	<0.070	2.1	<0.15			
	5/4/2011	6.81	221	-272	920.7	<0.10	<0.10	3.0	6.2	44.5	0.16	0.10	<0.050	<0.050	<0.15	0.26	<0.070	0.077	<0.15	0.34	430	6,800
	7/27/2011	6.54	597	-146	2323.7	<0.10	<0.10	3.8	3.0	185	0.096	<0.050	<0.050	<0.050	<0.15	0.27	<0.070	<0.050	<0.15	0.098	500	8,400
	10/24/2011	6.68	110	-90	1308.0	<0.10	<0.10	2.8	2.9	59.0	0.10	<0.050	<0.050	<0.050	<0.15	0.16	<0.070	0.074	<0.15	0.28	210	3,200
	2/13/2012	6.68	81	-220	1663.0	<0.10	<0.10	2.9	5.5	52.0	0.040 J	<0.050	<0.050	<0.050	<0.15	0.020 J	<0.070	<0.050	<0.15	3.4	220	8,000
	4/25/2012	6.62	27	-224	1709.0	<0.10	<0.10	3.2	4.6	87.0	0.056 J	<0.050	<0.050	<0.050	<0.15	0.12	<0.070	<0.050	<0.15	11	170	12,000
	8/2/2012	6.69	19	-111	1623.0	<0.10		4.2	3.9	48.2	0.034J	<0.050	<0.050	<0.050	<0.15	<0.15	<0.070	<0.050	<0.15	4.5	390	9,200
MMW-P-09S	3/20/2008	2.49	230		3920.3	1.5				78.7												
	6/5 & 6/6/2008	6.97			963.6	5.1				161	3.5	<0.070	0.26	<0.10	<0.070	0.29	0.					

**Table 4**  
**Cumulative Groundwater Analytical Data for Enhanced Anaerobic Bioremediation**  
**Quarter 3 - 2012**  
**Michigan Plaza**  
**3801-3823 West Michigan Street**  
**Indianapolis, Indiana**  
**MUNDELL Project No.: M01046**

Well ID	Sample Date	pH	Dissolved Oxygen	Oxidation Reduction Potential	Conductivity	Nitrogen, Nitrate	Nitrogen, Nitrite	Iron	Total Organic Carbon	Sulfate	Acetic Acid	Butyric Acid	Hexanoic Acid	i-Hexanoic Acid	i-Pentanoic Acid	Lactic Acid and HIBA	Pentanoic Acid	Propionic Acid	Pyruvic Acid	Ethane	Ethene	Methane	
		-	ug/L	mV	uS/cm	mg/L												ug/l					
		FIELD MEASUREMENTS												LAB RESULTS									
MMW-P-09D	3/20/2008	1.40	107		8894.3																		
	6/7/2008		443		3784.4																		
	11/19/2008	6.85	1,106			NS																	
	3/17/2009	6.57	819	834	2616.0																		
	11/3/2009	7.11	1,717	-59	897.8																		
	2/3/2010	7.10	4,243	-78	862.0																		
	4/22/2010	7.12	1,360	-64	884.7																		
	7/22/2010	7.18	3,702	-59	929.0																		
	10/13/2010	7.08	694	-282	903.0																		
	1/19/2011	6.12	1,079		788.7																		
	4/30/2011	7.17	347	-184	851.5																		
	7/26/2011	6.98	567	-198	919.1																		
	10/21/2011	7.17	200	-90	855.0																		
	2/15/2012	7.15	283	-103	830.4																		
	4/24/2012	7.24	254	-128	879.9																		
	8/1/2012	7.16	318	-95	920.5																		
MMW-P-10S	3/20/2008	1.73			4589.7	0.52				50.8													
	6/5, 6/6 & 6/7/2008		1,078		3508.2	<0.10				71.8	0.11	<0.070	<0.10	<0.10	<0.070	0.21	<0.070	<0.070	<0.070	0.16	1.3	50.0	
	9/11/2008	7.04	45		0.4	<0.10				111													
	11/19/2008	6.85	1,034			<0.10				34.4													
	3/17/2009	6.77	863	653	3958.2	<0.10				54.6													
	6/17/2009					<0.10				9.4													
	8/6/2009					<0.10				<5.0													
	11/3/2009	6.83	1,566	-112	705.5	<0.10				9.5										0.77	27.0	2,300	
	2/4/2010	6.65	614	-93	1663.5	<0.10				69.2										1.7	230	14,000	
	4/22/2010	6.97	1,564	-200	971.3	<0.10				15.8													
	7/21/2010	6.91	1,868	-105	900.8	<0.10				<5.0													
	10/14/2010	6.63	404	-154	1681.7	<0.10				85.8													
	1/20/2011	6.74	1,102		1009.0	0.12				29.2	4.7	0.15	<0.050	<0.050	<0.15	<0.10	<0.070	0.26	<0.15				
	5/5/2011	7.51	101	-341	329.6	<0.10	<0.10	1.8	2.7	17.6	0.16	<0.050	<0.050	<0.15	0.37	<0.070	<0.050	<0.15	2.2	6.1	5,800		
	7/27/2011	6.69	543	-170	1583.3	<0.10	<0.10	3.2	3.7	87.9	<0.070	<0.050	<0.050	<0.15	0.21	<0.070	0.052	<0.15	1.4	120	13,000		
	10/21/2011	6.90	110	-90	592.0	<0.10	<0.10	2.1	1.7	13.9	0.078	<0.050	<0.050	<0.15	<0.10	<0.070	0.070	<0.15	1.8	22.0	4,300		
	2/13/2012	6.90	112	-221	653.0	<0.10	<0.10	3.1	2.3	17.1	0.18	<0.050	<0.050	<0.15	0.13	<0.070	<0.050	<0.15	2.8	15	9,000		
	4/25/2012	6.86	45	-233	672.6	<0.10	<0.10	2.5	1.9	15.4	0.075	<0.050	<0.050	<0.15	0.092 J	<0.070	<0.050	<0.15	4.0	30	10,000		
	8/2/2012	6.69	50	-115	1721.0	<0.10		3.8	3.6	116	0.014 J	<0.050	0.17	<0.050	<0.15	0.031 J	<0.070	<0.050	<0.15	4.6	75	12,000	
MMW-P-10D	6/7/2008	1.71	1,134		4183.6																		
	3/17/2009	6.64	838	574	2733.7																		
	11/3/2009	6.80	1,699	-98	1104.1																		
	2/4/2010	6.78	619	-101	992.6																		
	4/22/2010	7.05	1,371	-192	857.0																		
	7/22/2010	6.83	2,694	-27	913.1																		
	10/14/2010	6.68	351	-165	1341.4																		
	1/20/2011	6.74	1,155		1338.7						0.072	<0.050	<0.050	<0.15	<0.10	<0.070	<0.050	<0.15	</				

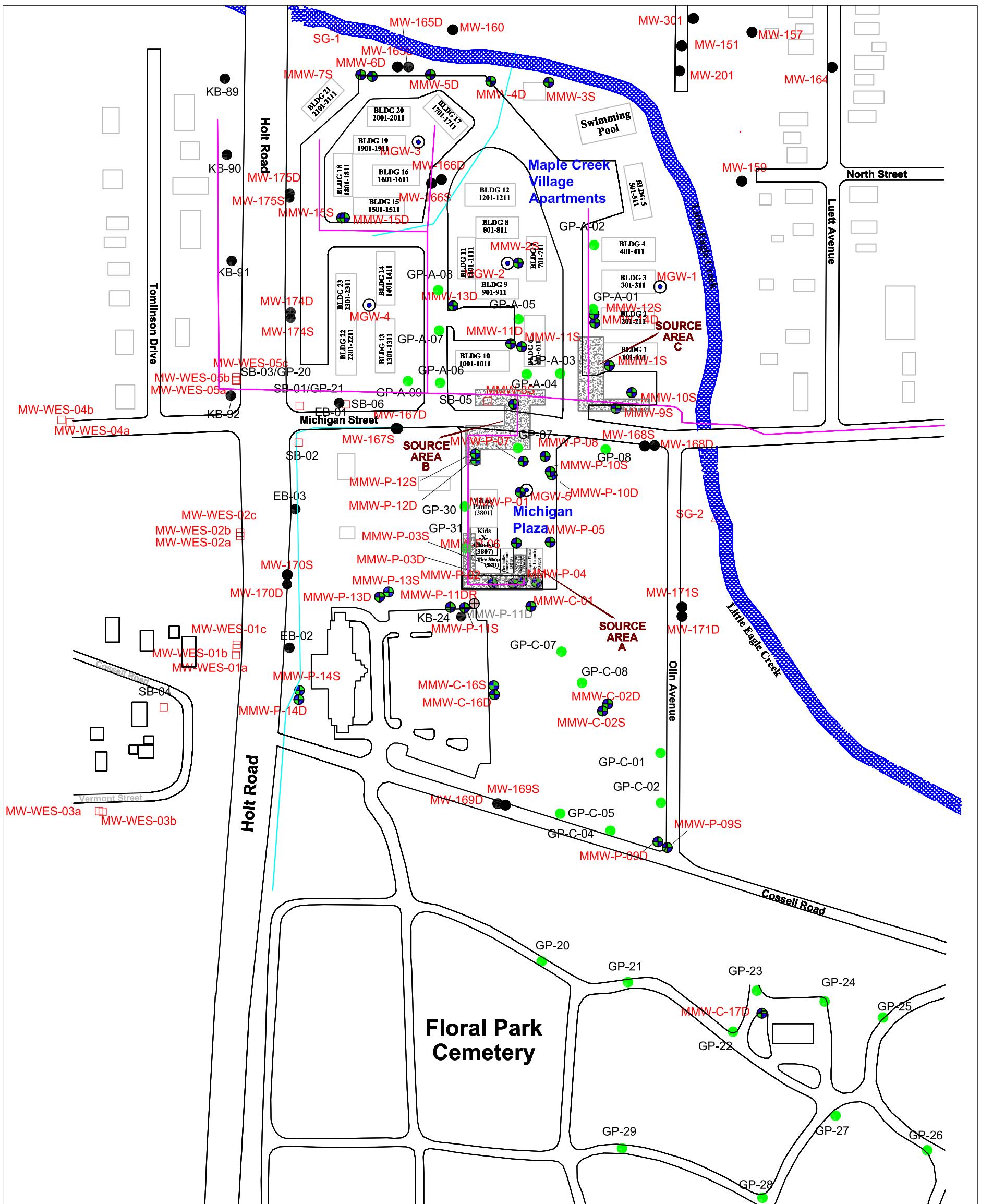
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Cumulative Groundwater Analytical Data for Enhanced Anaerobic Bioremediation  
Quarter 3 - 2012  
Michigan Plaza  
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MUNDELL Project No.: M01046

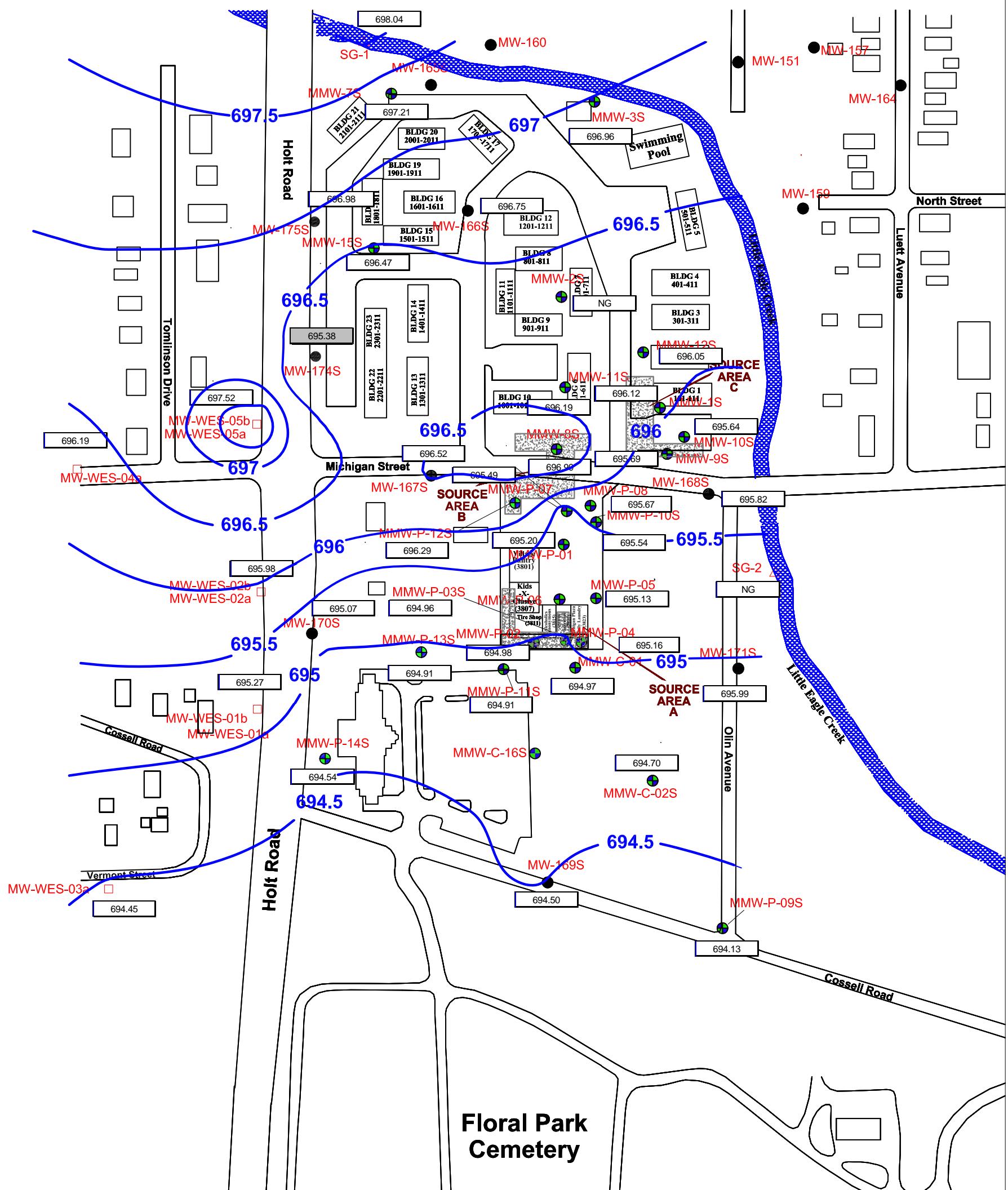
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**Cumulative Groundwater Analytical Data for Enhanced Anaerobic Bioremediation**  
**Quarter 3 - 2012**  
**Michigan Plaza**  
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Well ID	Sample Date	pH	Dissolved Oxygen	Oxidation Reduction Potential	Conductivity	Nitrogen, Nitrate	Nitrogen, Nitrite	Iron	Total Organic Carbon	Sulfate	Acetic Acid	Butyric Acid	Hexanoic Acid	i-Hexanoic Acid	i-Pentanoic Acid	Lactic Acid and HIBA	Pentanoic Acid	Propionic Acid	Pyruvic Acid	Ethane	Ethene	Methane
		-	ug/L	mV	uS/cm	mg/L												ug/l				
		FIELD MEASUREMENTS																		LAB RESULTS		
*MW-169S	4/21/2010	7.05	228	-49	848.4																	
	4/29/2011	6.91	3,567	19	975.4																	
	5/2/2012	Insufficient water to sample																				
*MW-169D	6/7/2008		636		3354.6																	
	4/21/2010	7.13	207	-53	783.5																	
	4/29/2011	7.04	232	-177	880.0																	
MW-170S	5/2/2012	7.00	87	-148	1062.0																	
	6/3/2008	7.09	187		1437.8																	
	4/21/2010	7.02	162	90	1489.9																	
	4/29/2011	6.99	486	-44	1241.0																	
	2/16/2012	6.93	483	79	1718.0																	
	5/2/2012	6.93	768	118	1488.0																	
	8/3/2012	6.89	379	300	1554.0																	
MW-170D	6/3/2008		7		969.5																	
	7/7/2010																					
	4/21/2010	7.11	190	87	1148.6																	
	4/29/2011	7.12	282	-142	1039.7																	
	2/16/2012	7.02	243	-74	1898.0																	
	5/2/2012	7.00	82	-82	1587.0																	
*MW-171S	8/3/2012	7.04	68	-82	1690.0																	
	6/7/2008	7.21	626		2714.6																	
*MW-171D	4/29/2011	6.98	4,282	70	798.8																	
	5/2/2012	6.80	72	211	791.5																	
	6/7/2008	7.32	415		3178.5																	
MMW-C-01	4/21/2010	7.07	171	16	846.3																	
	7/22/2010	7.05	4,607	-47	1001.9																	
	4/29/2011	7.01	377	-164	887.8																	
	5/2/2012	6.96	46	-174	891.3																	
	9/10/2008	7.51	477		0.3																	
	11/20/2008	6.79	491	480	2907.9																	
	3/17/2009	6.57	770	693	2702.0																	
MMW-C-01	11/3/2009	6.92	1,765	-100	983.5																	
	2/3/2010	6.94	3,818	-59	758.5																	
	4/21/2010	7.10	174	57	723.4																	
	7/22/2010	6.96	5,588	47	792.0																	
	10/13/2010	6.93	3,883	-29	834.6																	
	1/19/2011	6.77	1,522		741.5																	
	5/5/2011	7.41	9,253	-75	463.2	14.7	<0.40	0.0	<1.0	31.2	0.110	<0.050	<0.050	<0.050	<0.15	0.28	<0.070	<0.050	<0.15	<0.025	<0.025	0.14
	7/27/2011	6.80	707	-190	1156.7	0.79	<0.10	0.0	1.8	113	<0.070	<0.050	<0.050	<0.15	0.26	<0.070	<0.050	<0.15	0.12	0.170	12,000	
	10/21/2011	6.92	340	-30	756.5	0.79	<0.10	1.2	2.4	89.0	0.10	<0.050	<0.050	<0.15	0.37	<0.070	0.066	<0.15	0.081	94	12,000	
	2/15/2012	6.98	1,682	-31	780.0	7.7	<0.10	2.0	1.9	73.5	0.0073 J	<0.050	<0.050	<0.15	0.034 J	<0.070	<0.050	<0.15	0.22	5.6	10,000	
MMW-C-02S	4/24/2012	7.05	178	-54	791.4	<0.10	<0.10	2.75	2.2	71.0	0.034 J	<0.050	0.27	<0.050	<0.15	0.11	<0.070	<0.050	<0.15	0.20	24	12,000
	8/1/2012	6.97	190	-96	828.6	<0.10		2.2	2.5	36.2	0.0086 J	<0.050	<.050	<0.050	<0.15	0.094 J	<0.070	<0.050	<0.15	0.13	3.7	14,000
	11/20/2008	6.97	931	476	2806.7																	
	3/17/2009	6.55	811	867	2506.9																	

## **FIGURES**

- Figure 1 Site Plan
- Figure 2a Shallow Potentiometric Surface Map – July 30, 2012  
(Excludes Depiction of Groundwater Trough)
- Figure 2b Shallow Potentiometric Surface Map – July 30, 2012  
(Includes Depiction of Groundwater Trough)
- Figure 3a Deep Potentiometric Surface Map – July 30, 2012  
(Excludes Depiction of Groundwater Trough)
- Figure 3b Deep Potentiometric Surface Map – July 30, 2012  
(Includes Depiction of Groundwater Trough)
- Figure 4 Groundwater Analytical Results – Shallow (Third Quarter 2012)
- Figure 5 Groundwater Analytical Results – Deep (Third Quarter 2012)
- Figure 6 Indicator Compound Trends in Groundwater
- Figure 7 Parent and Daughter Products Distribution in Groundwater
- Figure 8 Vapor Mitigation System Locations
- Figure 9 PCE Concentration Trends & Cumulative Pounds Removed (B1)
- Figure 10 PCE Concentration Trends & Cumulative Pounds Removed (B2)
- Figure 11 PCE Concentration Trends & Cumulative Pounds Removed (B3)
- Figure 12 PCE Concentration Trends & Cumulative Pounds Removed (B4)
- Figure 13 PCE Concentration Trends & Cumulative Pounds Removed (B5)
- Figure 14 PCE Concentration Trends & Cumulative Pounds Removed (B6)
- Figure 15 PCE Concentration Trends & Cumulative Pounds Removed (B7)
- Figure 16 PCE Concentration Trends & Cumulative Pounds Removed  
(B1 through B4)
- Figure 17 PCE Concentration Trends & Cumulative Pounds Removed  
(B5 through B7)





### LEGEND

- MMW-P-06
- MW-160
- MW-WES-01A
- SG-1
- 697.5
- MUNDELL Monitoring Well
- ENVIRON Monitoring Well
- U.S. EPA Monitoring Well
- Stream Gauge Location
- Potentiometric Surface  
Equipotential Lines Contour  
Interval = 0.5 feet

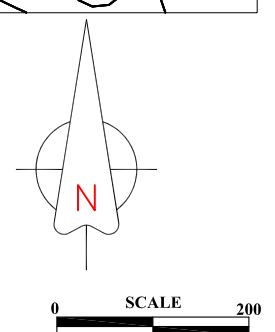
NG = Not Gauged

696.68

Static water elevation (ft-MSL)

695.64

Static water elevation not used to  
contour potentiometric surface  
map.



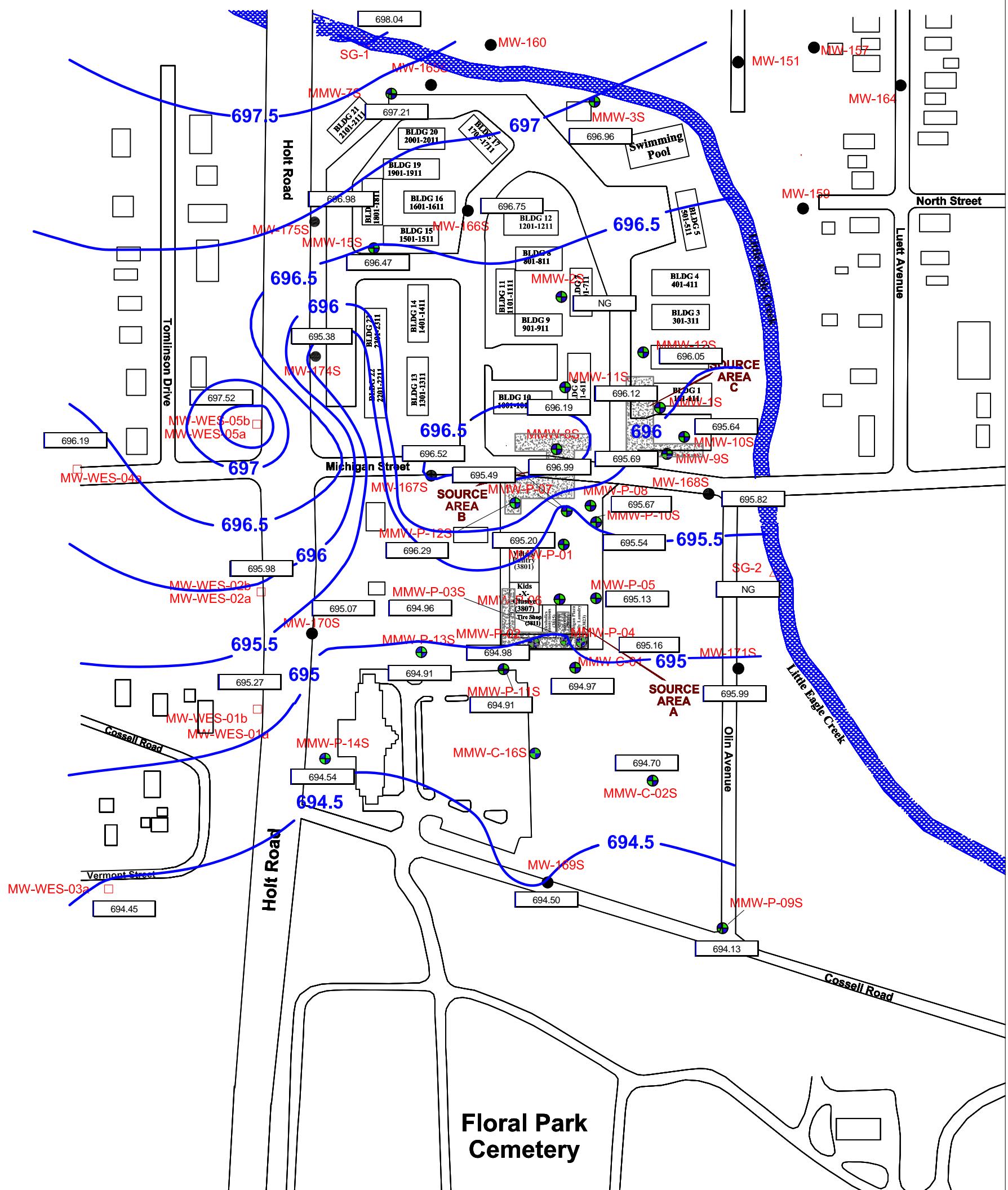
ENVIRON/Keramida Monitoring  
Well Locations Referenced from  
Keramida Environmental, Inc.  
Project No. 2829  
March 13, 2002

Project Number:	M01046
Drawing File:	3Q12 QMR
Date Prepared:	1-3-13
Scale:	1"=200'

### SHALLOW POTENTIOMETRIC SURFACE - 3RD QUARTER 2012

Michigan Plaza  
3801 - 3823 West Michigan Street  
Indianapolis, INDIANA

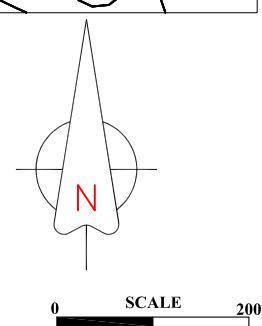
FIGURE  
**2a**



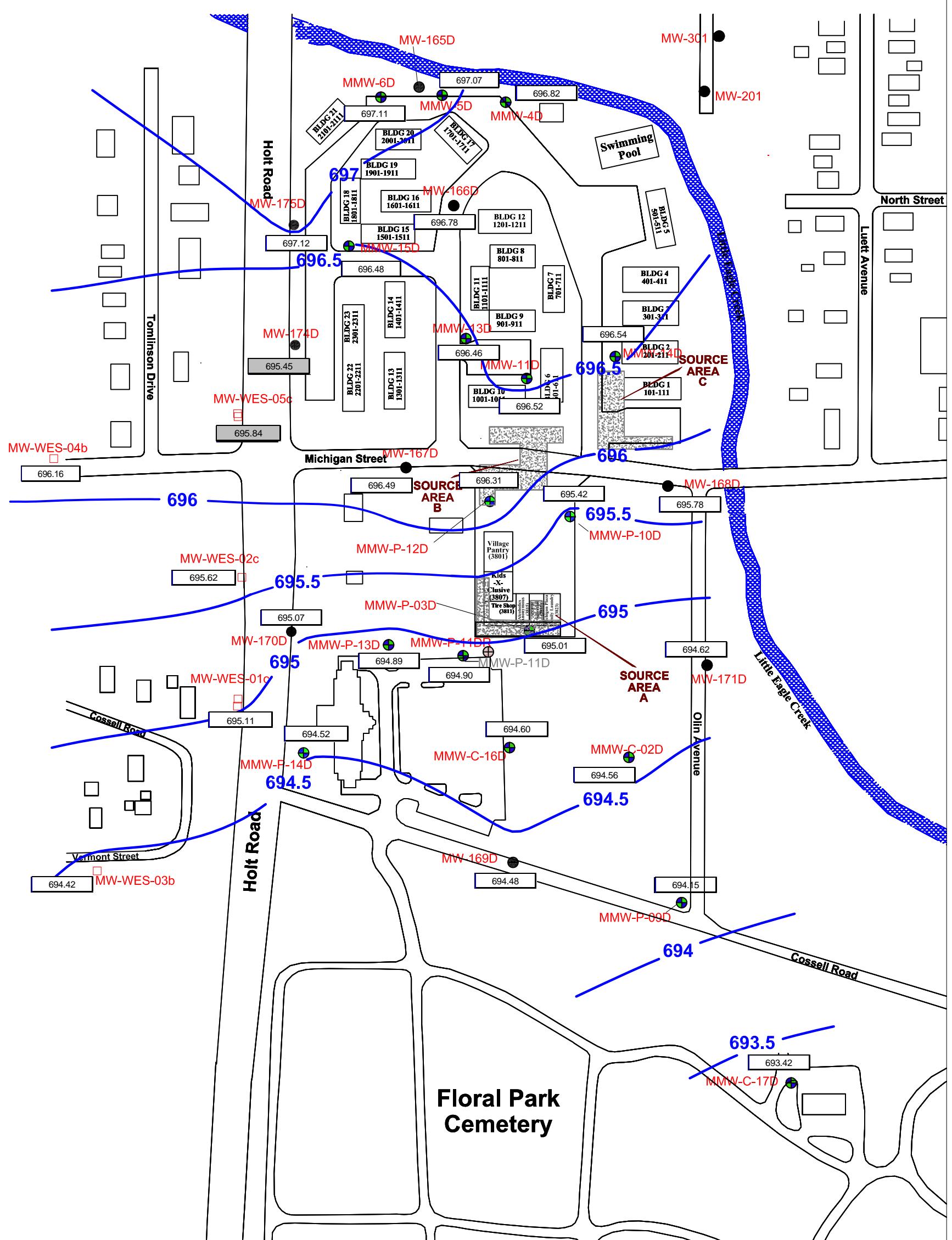
### LEGEND

- MMW-P-06     MUNDELL Monitoring Well
- MW-160     ENVIRON Monitoring Well
- MW-WES-01A     U.S. EPA Monitoring Well
- SG-1     Stream Gauge Location
- 697.5     Potentiometric Surface  
Equipotential Lines Contour  
Interval = 0.5 feet

- NG = Not Gauged
- 696.68     Static water elevation (ft-MSL)
- 695.64     Static water elevation not used to  
contour potentiometric surface  
map.

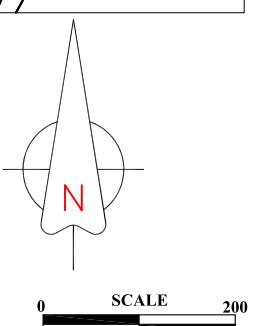


ENVIRON/Keramida Monitoring  
Well Locations Referenced from  
Keramida Environmental, Inc.  
Project No. 2829  
March 13, 2002

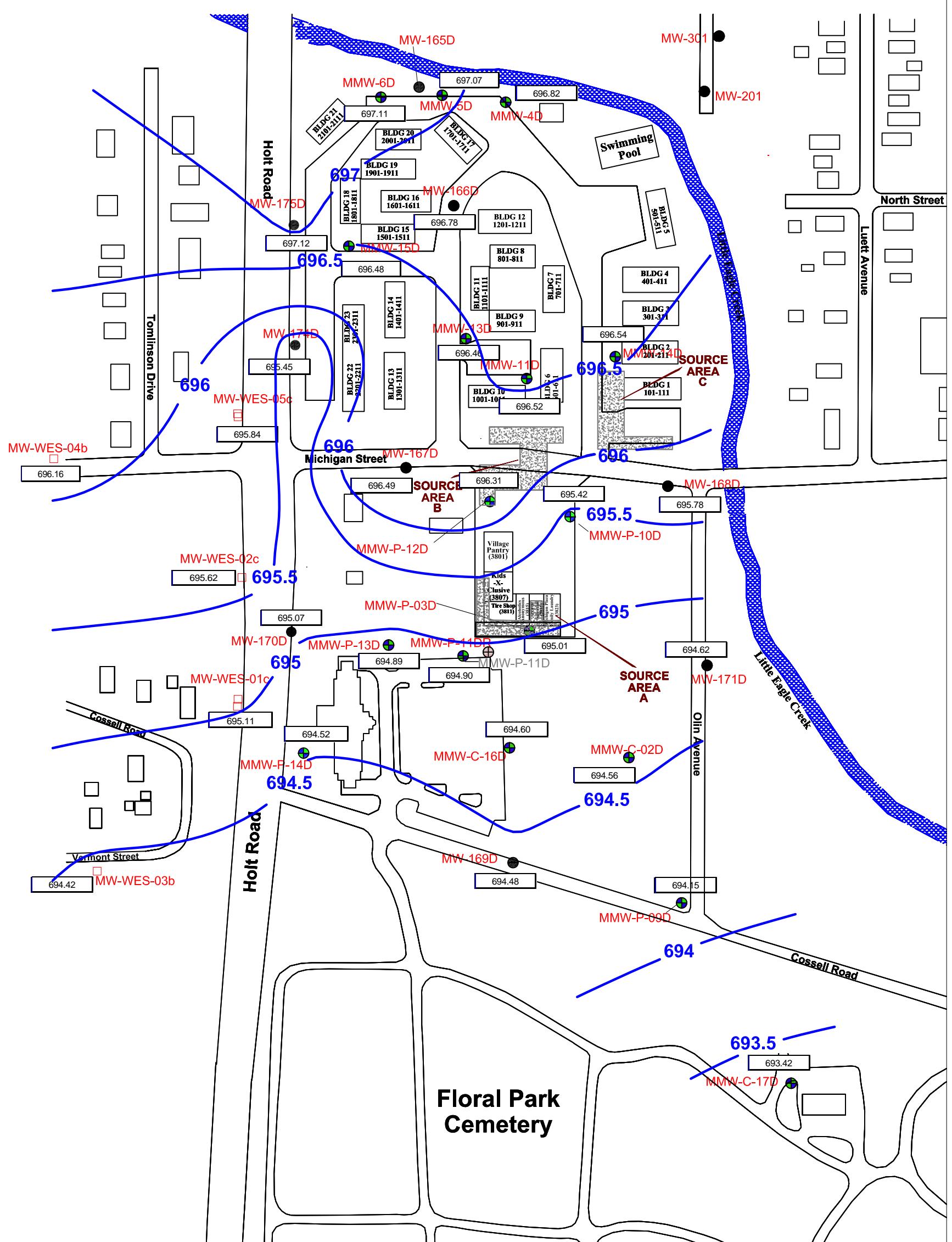


## LEGEND

- MMW-P-06 ● MUNDELL Monitoring Well      696.68      Static water elevation (ft-MSL)
- MW-160 ● ENVIRON Monitoring Well      695.64      Static water elevation not used to contour potentiometric surface map.
- MW-WES-01A □ U.S. EPA Monitoring Well
- 697.5** Potentiometric Surface  
Equipotential Lines Contour  
Interval = 0.5 feet

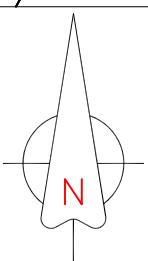


ENVIRON/Keramida Monitoring  
Well Locations Referenced from  
Keramida Environmental, Inc.  
Project No. 2829  
March 13, 2002



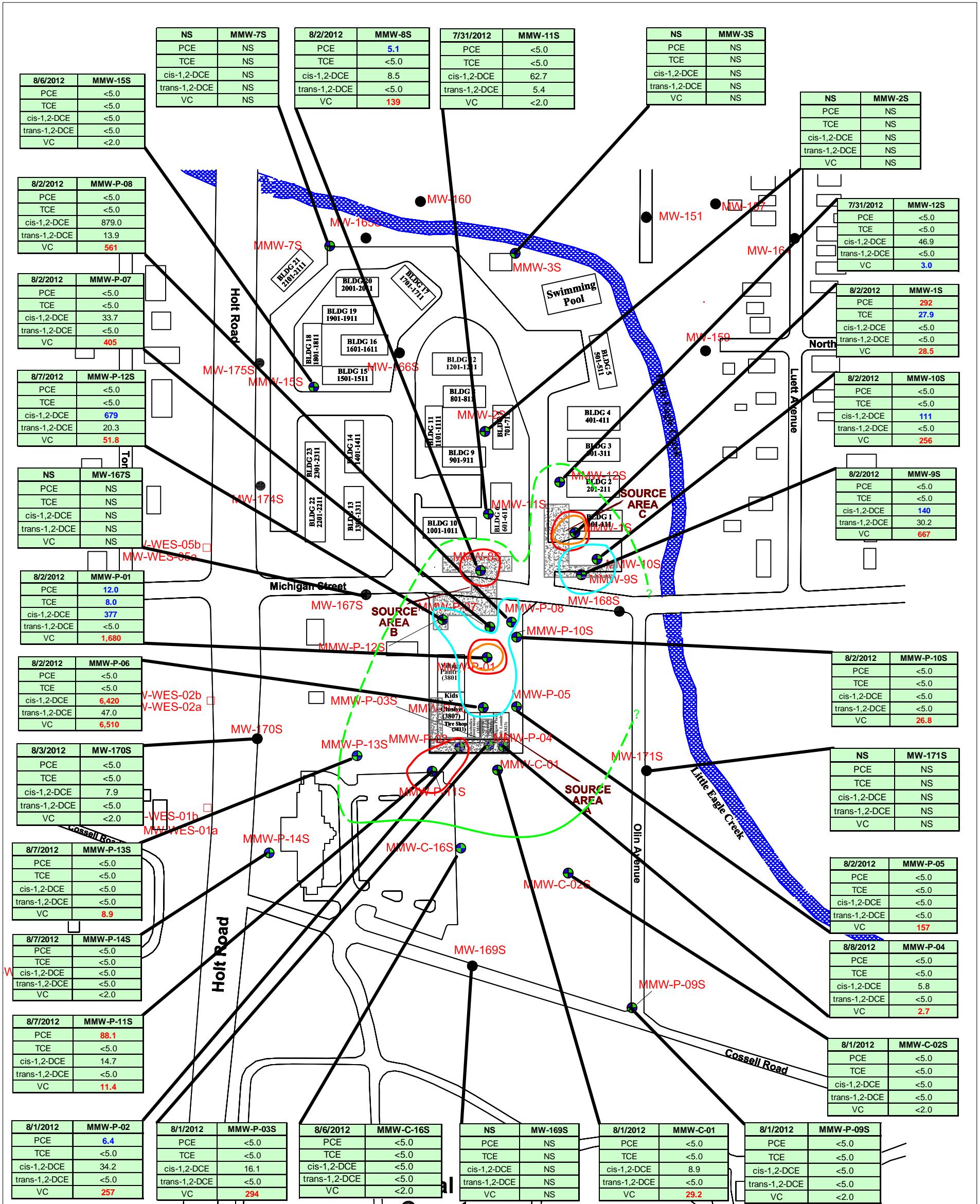
## LEGEND

- MMW-P-06 ● MUNDELL Monitoring Well      696.68      Static water elevation (ft-MSL)
- MW-160 ● ENVIRON Monitoring Well      695.64      Static water elevation not used to contour potentiometric surface map.
- MW-WES-01A □ U.S. EPA Monitoring Well
- 697.5** Potentiometric Surface Equipotential Lines Contour Interval = 0.5 feet



0 SCALE 200  
feet

ENVIRON/Keramida Monitoring Well Locations Referenced from Keramida Environmental, Inc.  
Project No. 2829  
March 13, 2002

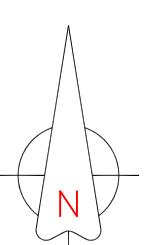


### LEGEND

- MMW-P-06 ● MUNDELL Monitoring Well
- MW-160 ● ENVIRON Monitoring Well
- MW-WES-01A □ U.S. EPA Monitoring Well
- Inferred Extent of PCE > 5 ug/L
- Inferred Extent of TCE > 5 ug/L
- Inferred Extent of Cis-1,2 - DCE > 70 ug/L
- Inferred Extent of VC > 2 ug/L
- NS = Not Sampled

	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl chloride
IDEM RISC Default Industrial Cleanup Level	55	31	1,000	2,000	4
IDEM RISC Default Residential Cleanup Level; IDEM 2012 RCG Tap Residential	5	5	70	100	2

All Values Over IDEM RISC Industrial Default Cleanup Levels In Red  
PCE = Tetrachloroethene  
TCE = Trichloroethene  
cis-1,2-DCE = cis-1,2-Dichloroethene  
trans-1,2-DCE = trans-1,2-Dichloroethene  
ug/l = micrograms per liter  
NS = Not Sampled  
All analytical results presented in micrograms per liter (ug/l)



SCALE 200  
feet

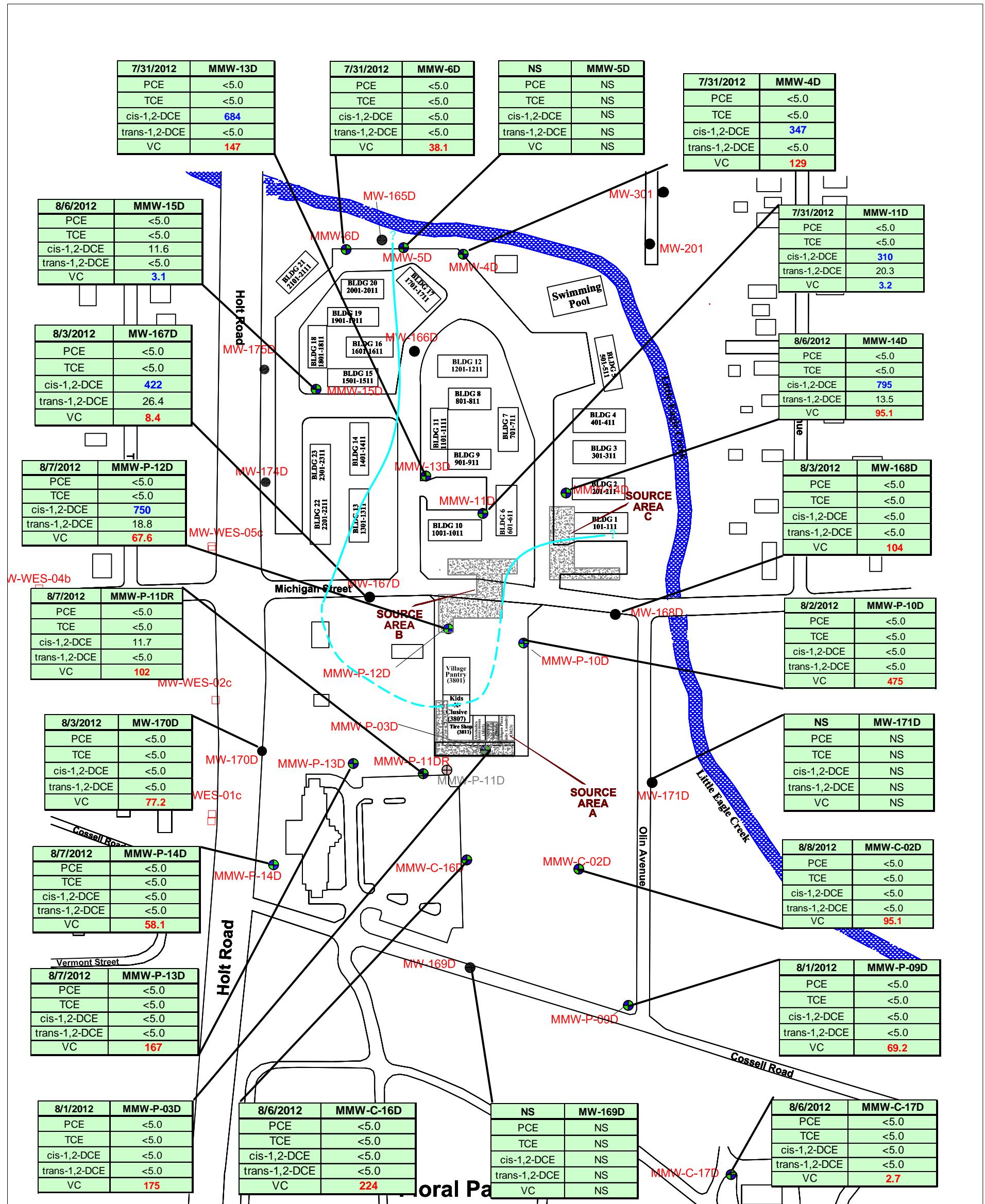
FIGURE 4

110 South Downey Avenue  
Indianapolis, Indiana 46219  
317-630-9060, fax 317-630-9065  
www.MundellAssociates.com

Project Number: M01046  
Drawing File: 3Q12 QMR  
Date Prepared: 10-31-12  
Scale: 1"=200'

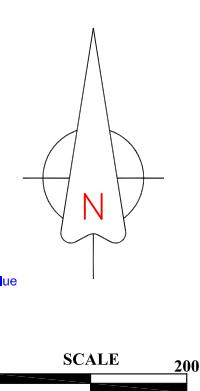
GROUNDWATER ANALYTICAL MAP - SHALLOW  
3RD QUARTER 2012

Michigan Plaza  
3801 - 3823 West Michigan Street  
Indianapolis, INDIANA



	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl chloride
IDEML RISC Default Industrial Cleanup Level	55	31	1,000	2,000	4
IDEML RISC Default Residential Cleanup Level; IDEML 2012 RCG Tap Residential	5	5	70	100	2
4/25/2012 MMW-1S					
PCE	270				
TCE	11.2				
cis-1,2-DCE	34.2				
trans-1,2-DCE	<5.0				
VC	39				

All Values Over IDEML Industrial Default Cleanup Levels In Red  
All Values Over IDEML Residential Default Cleanup Levels/2012 RCG Tap - Residential Screening Level In Blue  
PCE = Trichloroethene  
TCE = Trichloroethylene  
cis-1,2-DCE = cis-1,2-Dichloroethene  
trans-1,2-DCE = trans-1,2-Dichloroethene  
ug/l = micrograms per liter  
NS = Not Sampled  
All analytical results presented in micrograms per liter (ug/l)

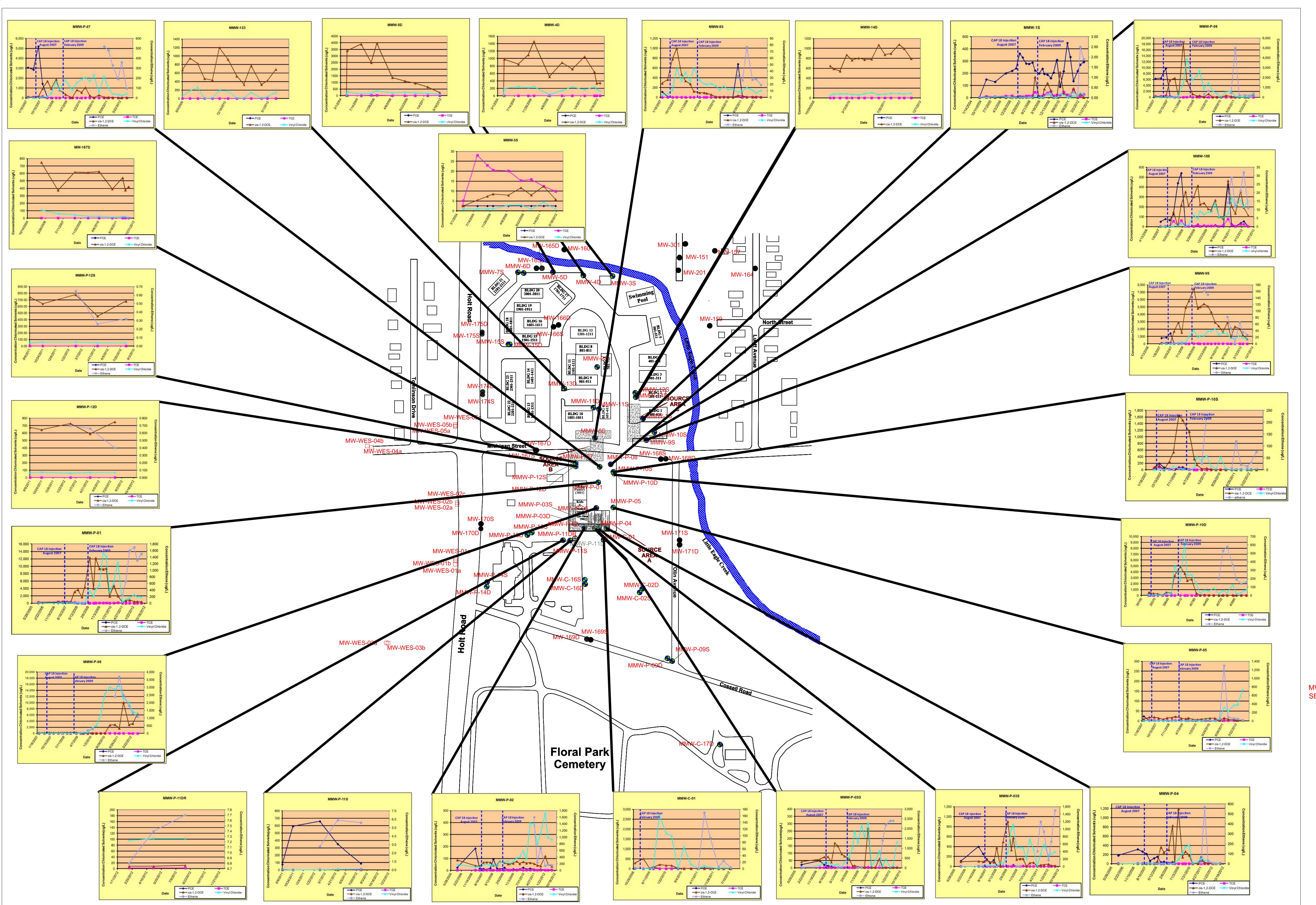


### GROUNDWATER ANALYTICAL MAP - DEEP

3RD QUARTER 2012

Michigan Plaza  
3801 - 3823 West Michigan Street  
Indianapolis, INDIANA

FIGURE  
5



The logo for Mundell Consulting Professionals features a circular emblem at the top containing four curved bands of color: green, grey, blue, and white. Below the circle, the word "Mundell" is written in a large, bold, sans-serif font, with each letter having a slight gradient from blue to green. Underneath "Mundell", the words "Consulting Professionals" are written in a smaller, lighter blue sans-serif font. At the bottom, the phrase "for the Earth and the Environment" is written in a bold, dark blue sans-serif font.

**Mundell & Associates**  
110 South Downey Avenue  
Indianapolis, Indiana 46219  
7-630-9060, fax 317-630-9065  
[www.MundellAssociates.com](http://www.MundellAssociates.com)

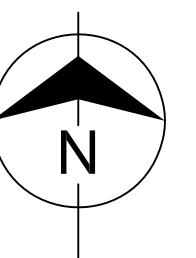
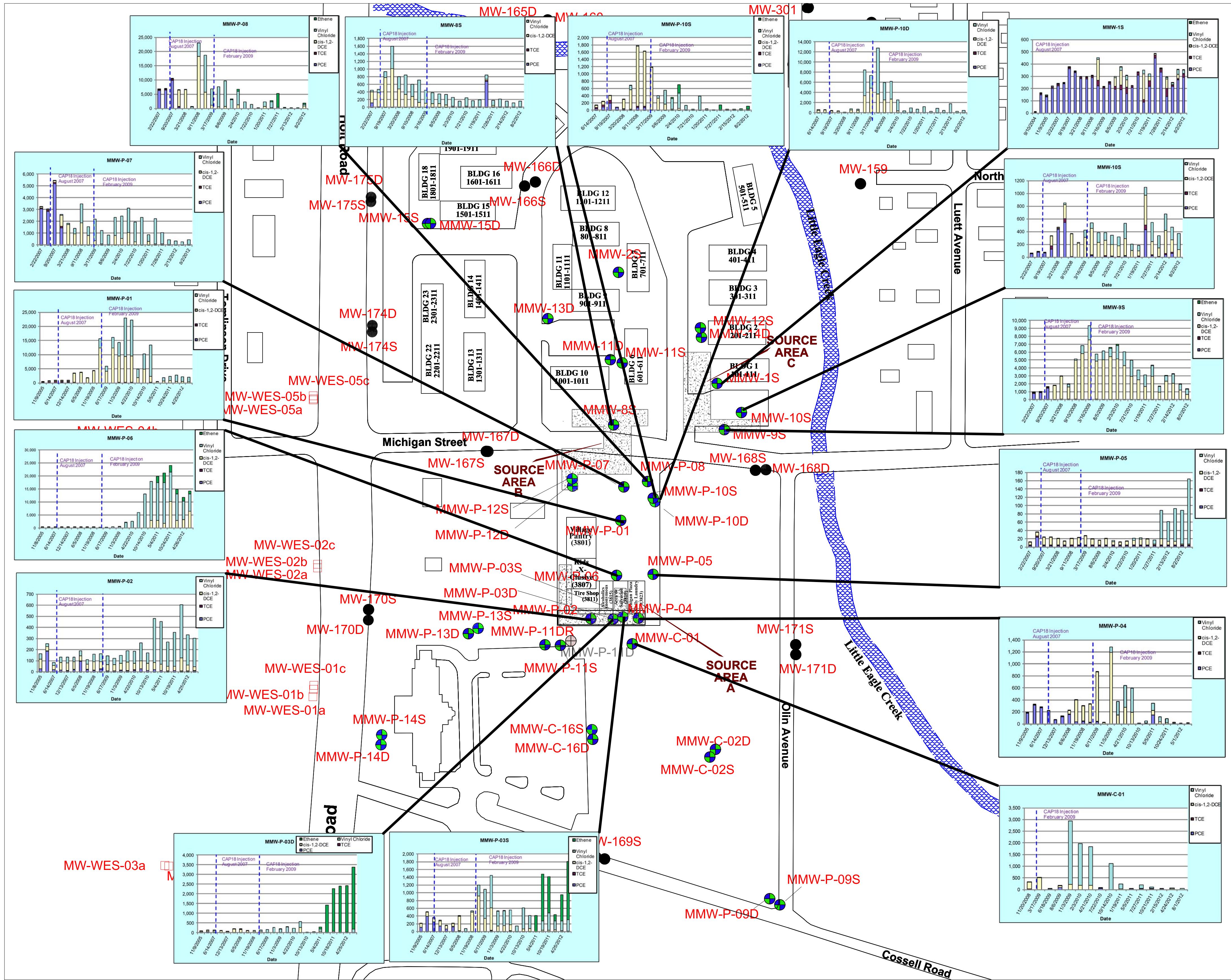
REV.	DATE	DESCRIPTION	BY	APPR.	PROJECT NO.: M01046	FILE NO.:GW Quarterly.DWG
					DRAWING: 1"=200'	PLOT SIZE: ANSI D
					DRAFTED BY: MTB	DATE: 11/15/12
					CHECKED BY: SVE	DATE: 11/15/12
					APPROVED BY: MEB	DATE: 12/14/12

# **Indicator Compound Trends in Groundwater**

Michigan Plaza  
3801 - 3823 Michigan Street

# FIGURE

## 6



A horizontal scale bar representing 200 feet. The first 100 feet is divided into four equal segments by vertical tick marks, with the text "100'" above the third segment. The last 100 feet is represented by a solid black line. Below the scale bar, the text "SCALE IN FEET" is centered.

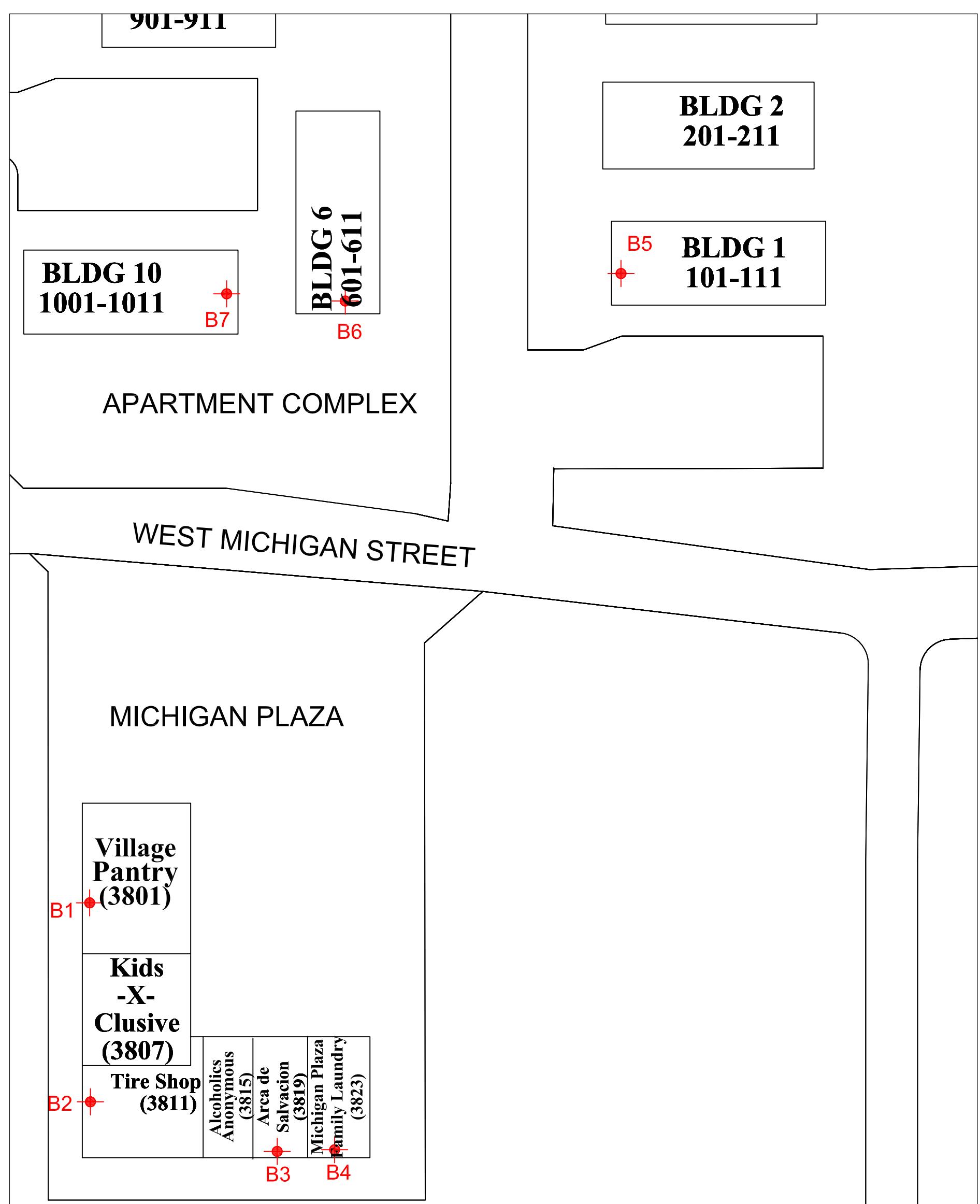
# **Parent and Daughter Compound Trends in Groundwater**

Michigan Plaza  
3801 - 3823 Michigan Street  
Indianapolis, Indiana

# FIGURE

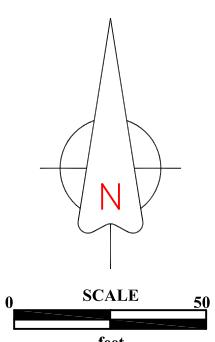
## 7

REV.	DATE	DESCRIPTION	BY	APPR.	PROJECT NO.: M01046	FILE NO.:GW Quarterly.DWG
					DRAWING: 1"=100'	PLOT SIZE: ANSI D
					DRAFTED BY: MEB	DATE: 12/17/12
					CHECKED BY: MEB	DATE: 12/17/12
					APPROVED BY: MEB	DATE: 12/20/12

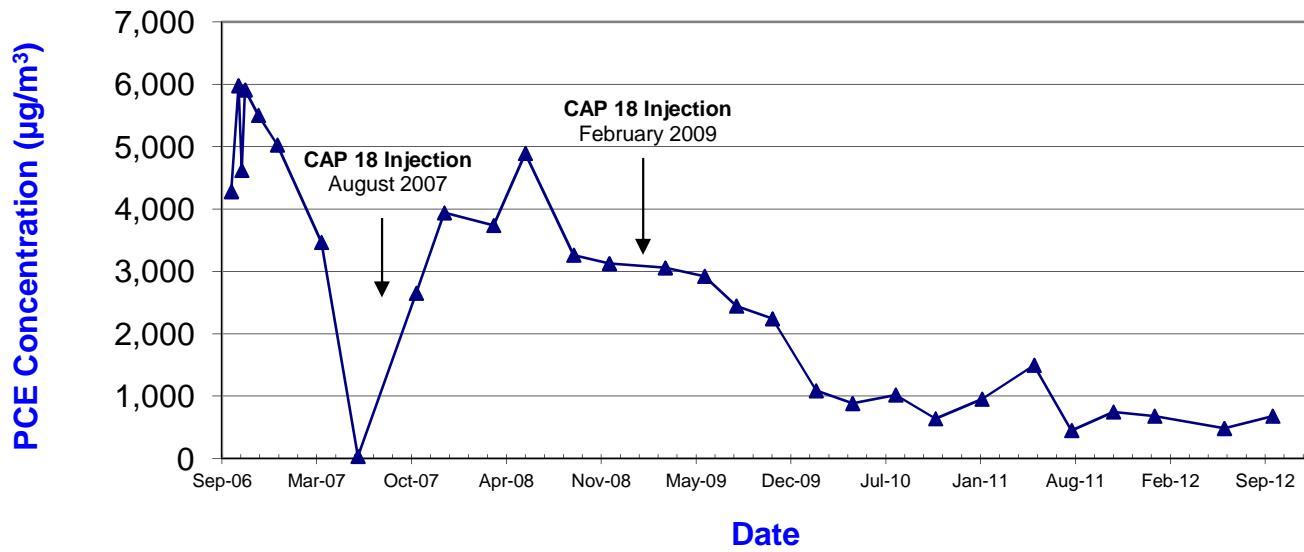


### LEGEND

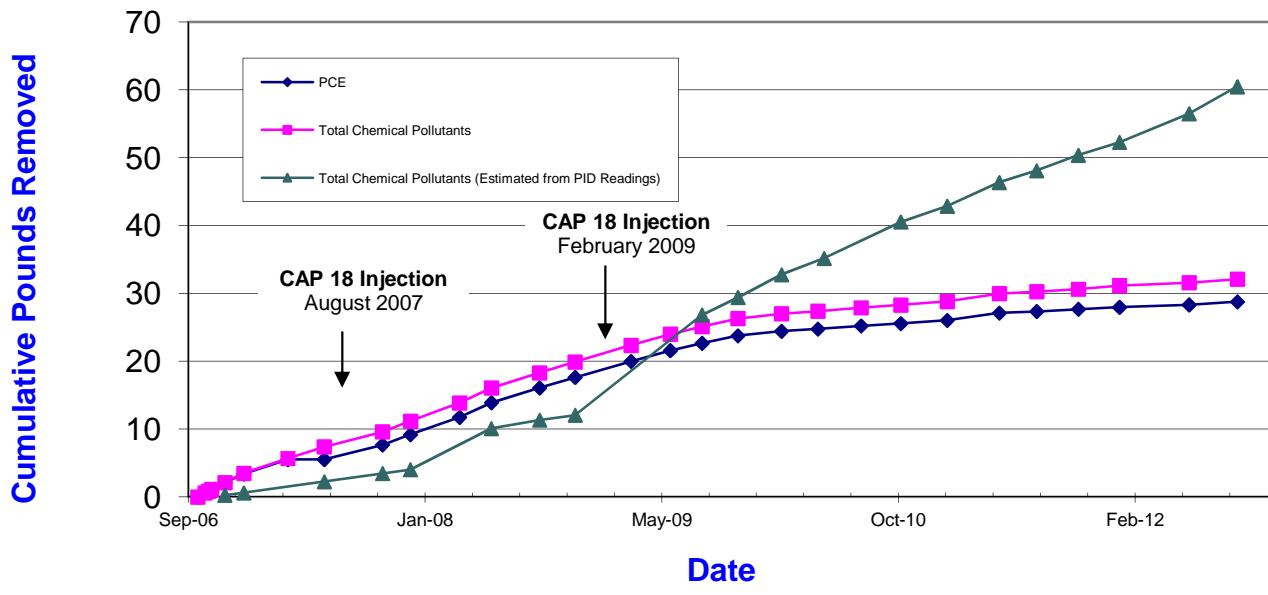
B1 • System Location



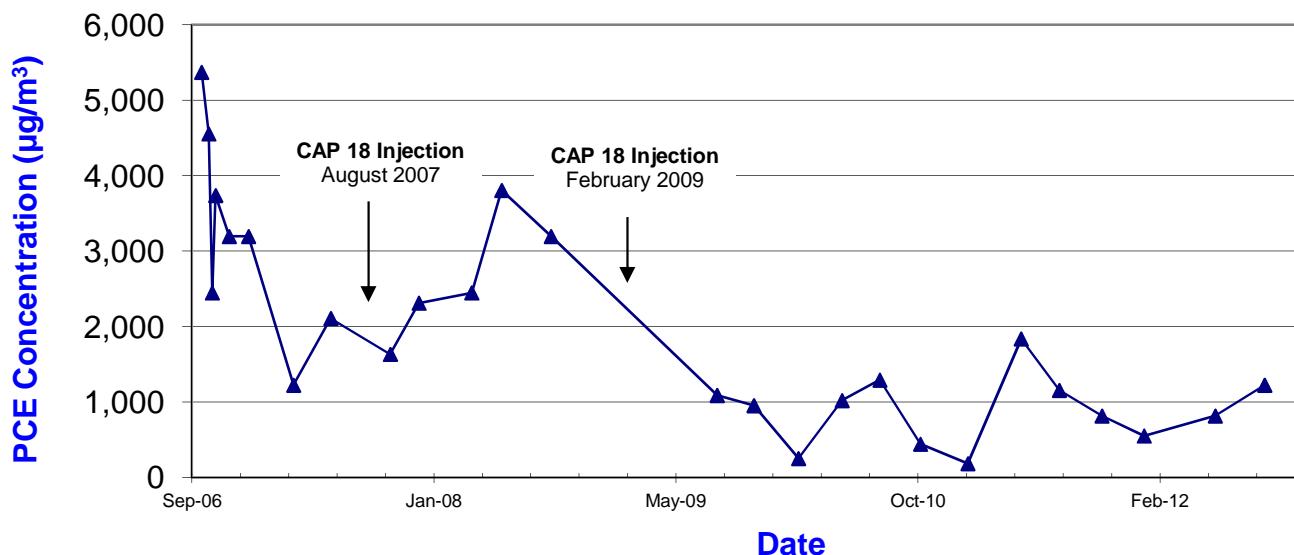
**PCE Vapor Concentrations Trend -  
Village Pantry (Unit 3801) Vapor Mitigation System (B1)**



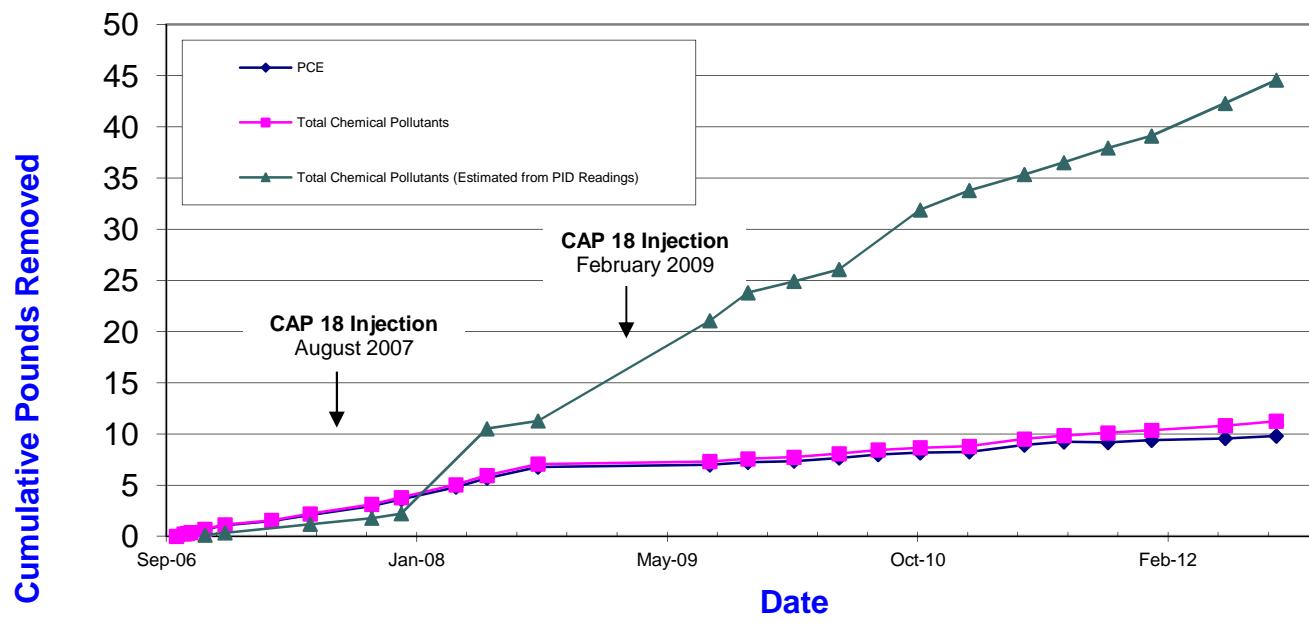
**Chemical Pounds Removed -  
Village Pantry (Unit 3801) Vapor Mitigation System (B1)**



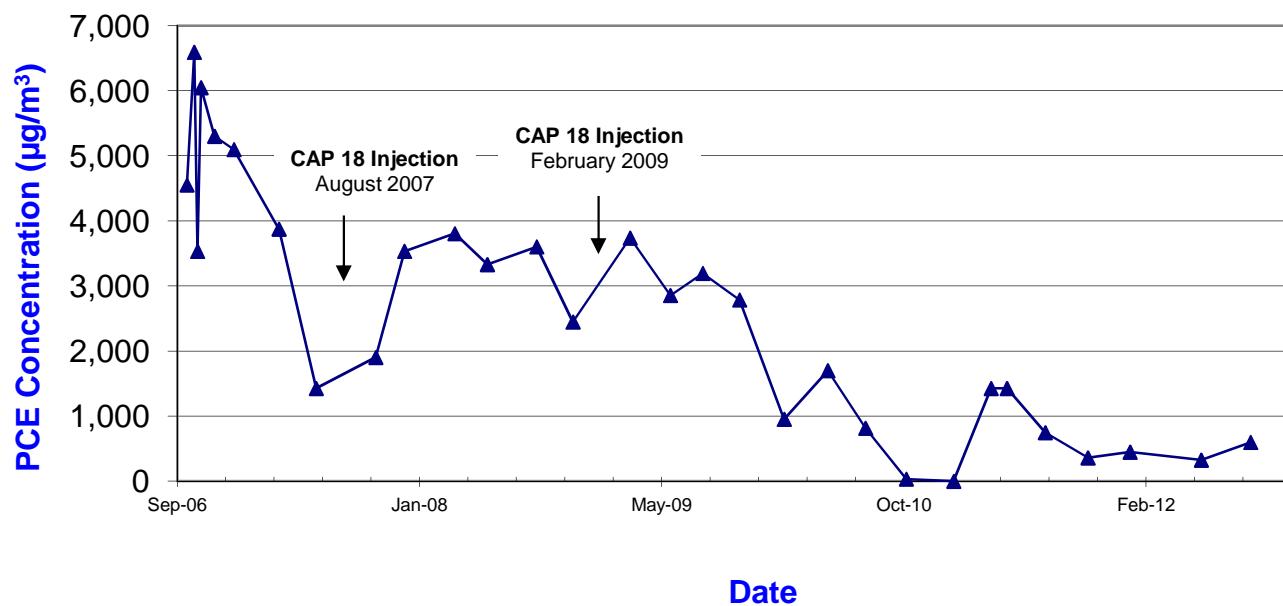
**PCE Vapor Concentrations Trend -  
Unit 3811 Vapor Mitigation System (B2)**



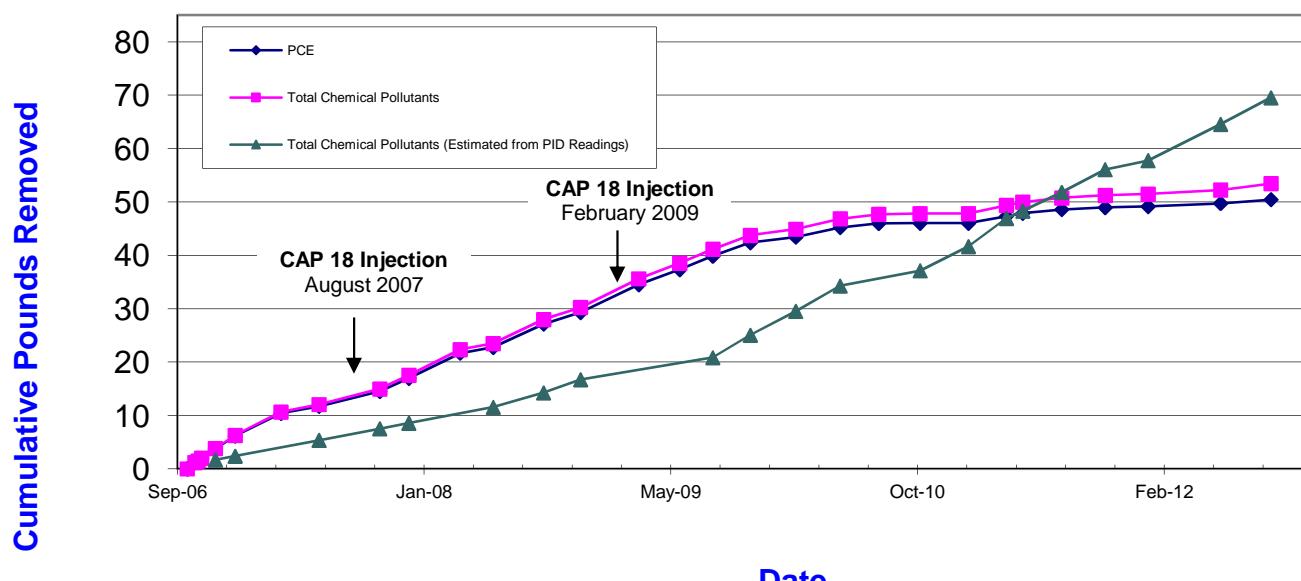
**Chemical Pounds Removed -  
Unit 3811 Vapor Mitigation System (B2)**



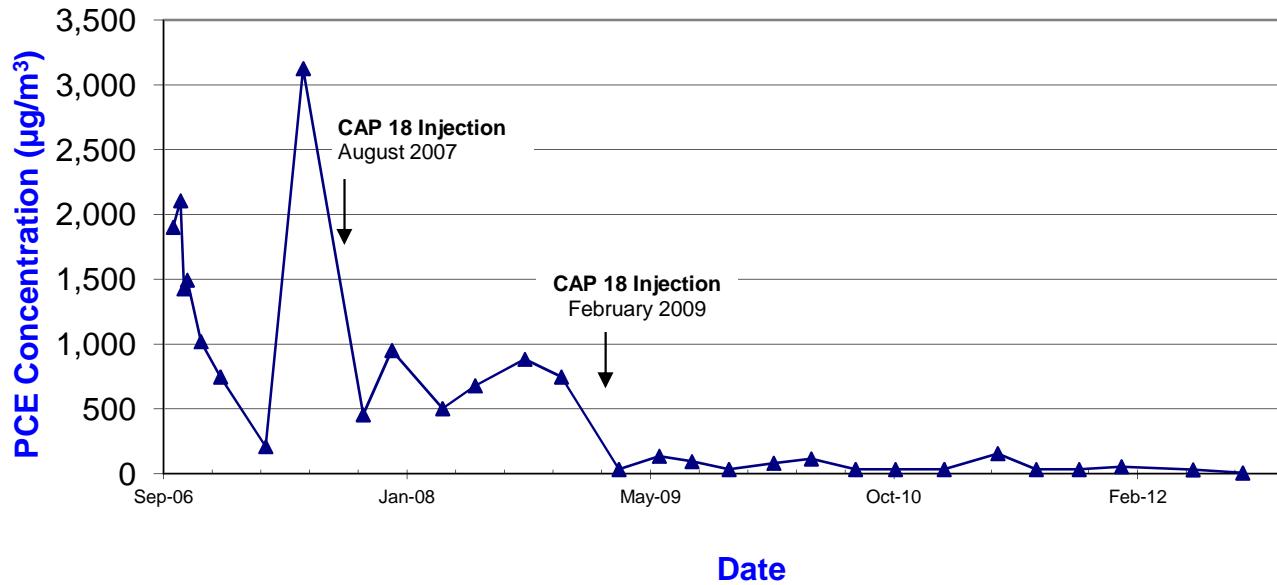
**PCE Vapor Concentrations Trend -  
Unit 3819 Vapor Mitigation System (B3)**



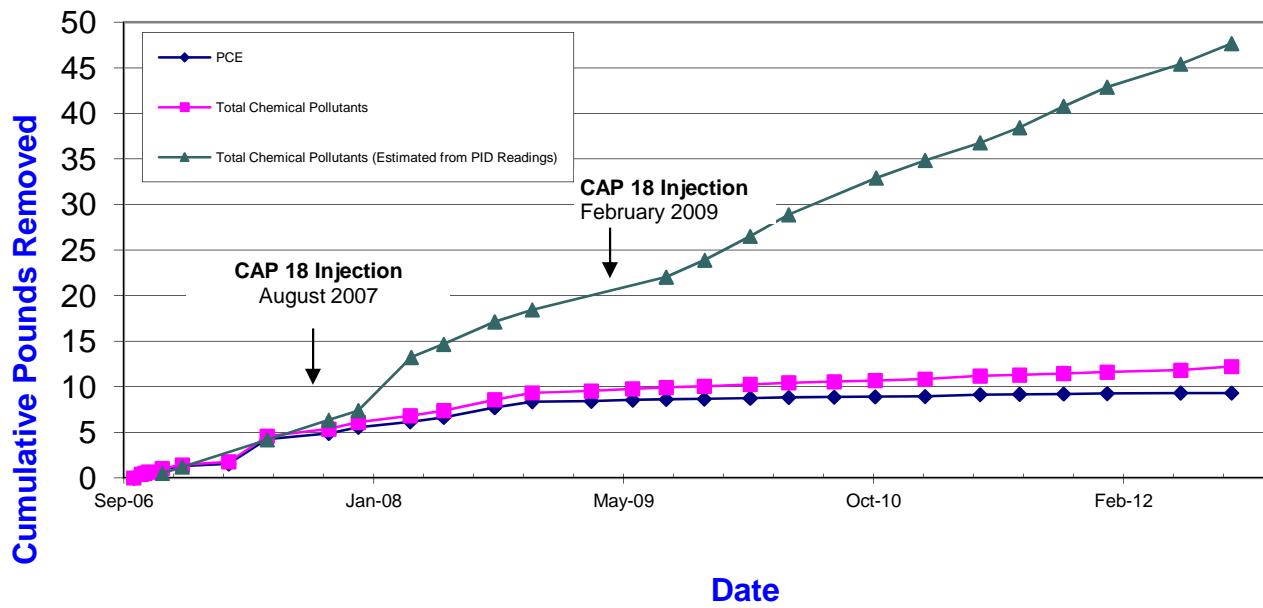
**Chemical Pounds Removed -  
Mexican Store Vapor Mitigation System (B3)**



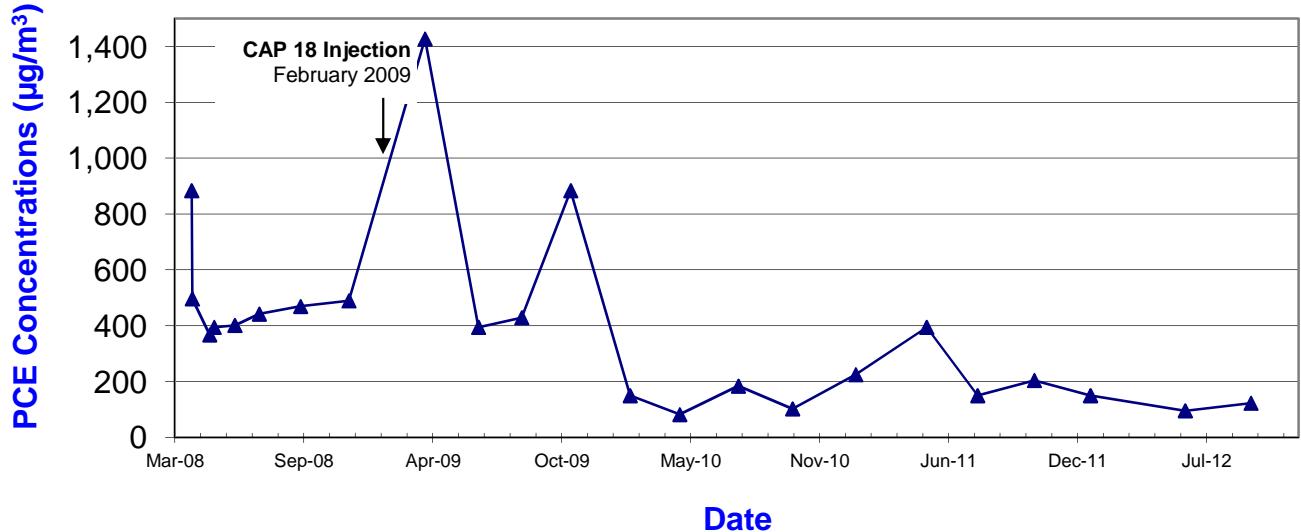
**PCE Vapor Concentrations Trend -  
Laundromat Vapor Mitigation System (B4)**



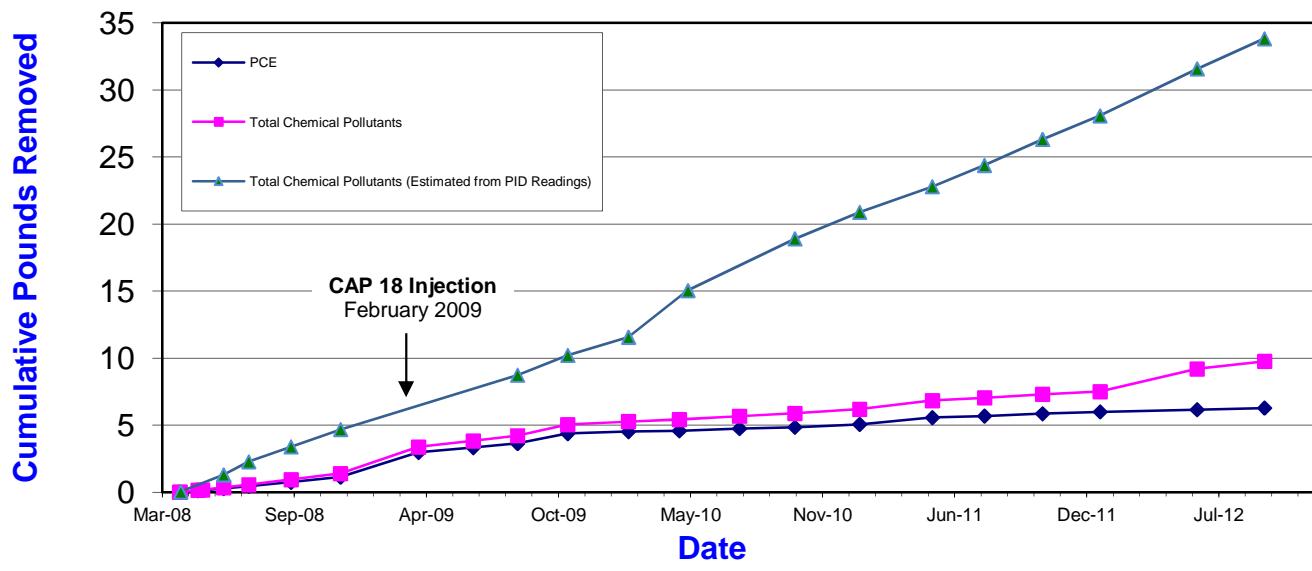
**Chemical Pounds Removed -  
Laundromat Vapor Mitigation System (B4)**



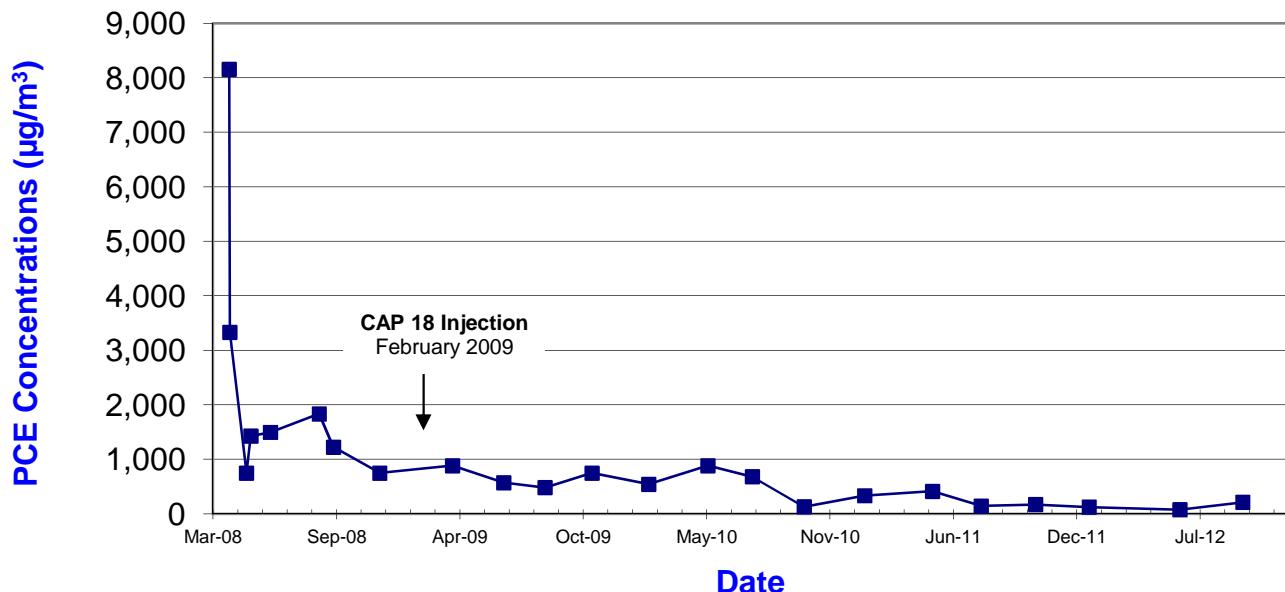
**PCE Vapor Concentrations Trend -  
Apartment Building 1 Vapor Mitigation System (B5)**



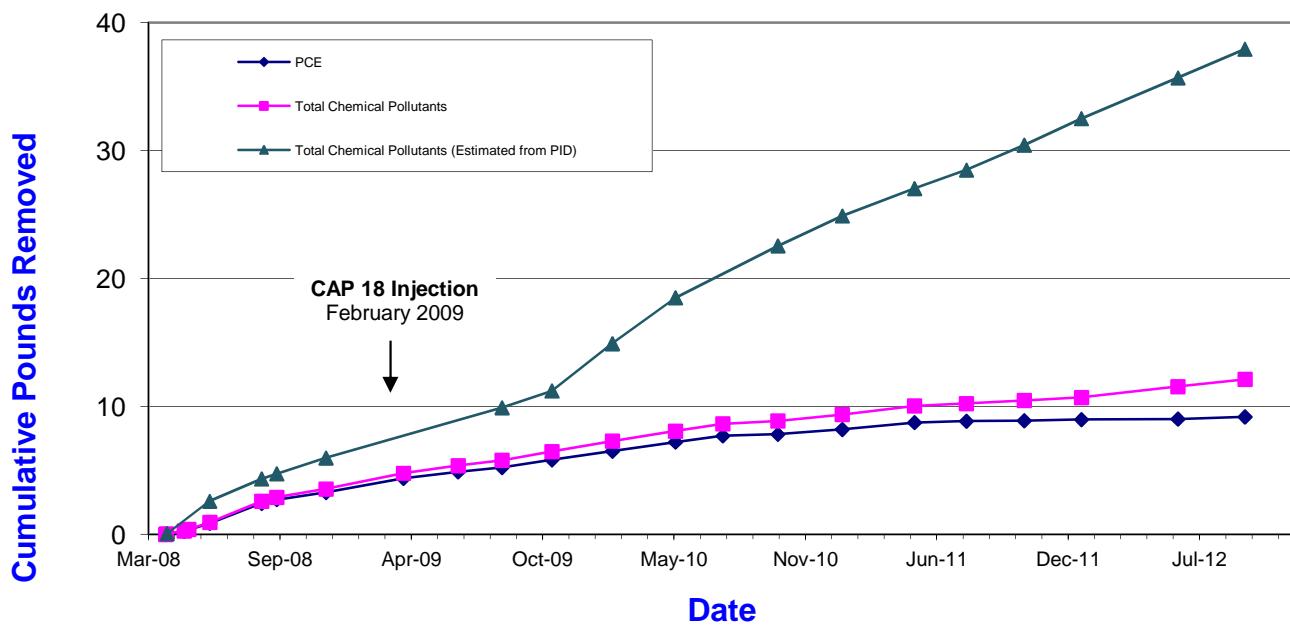
**Chemical Pounds Removed -  
Apartment Building 1 Vapor Mitigation System (B5)**



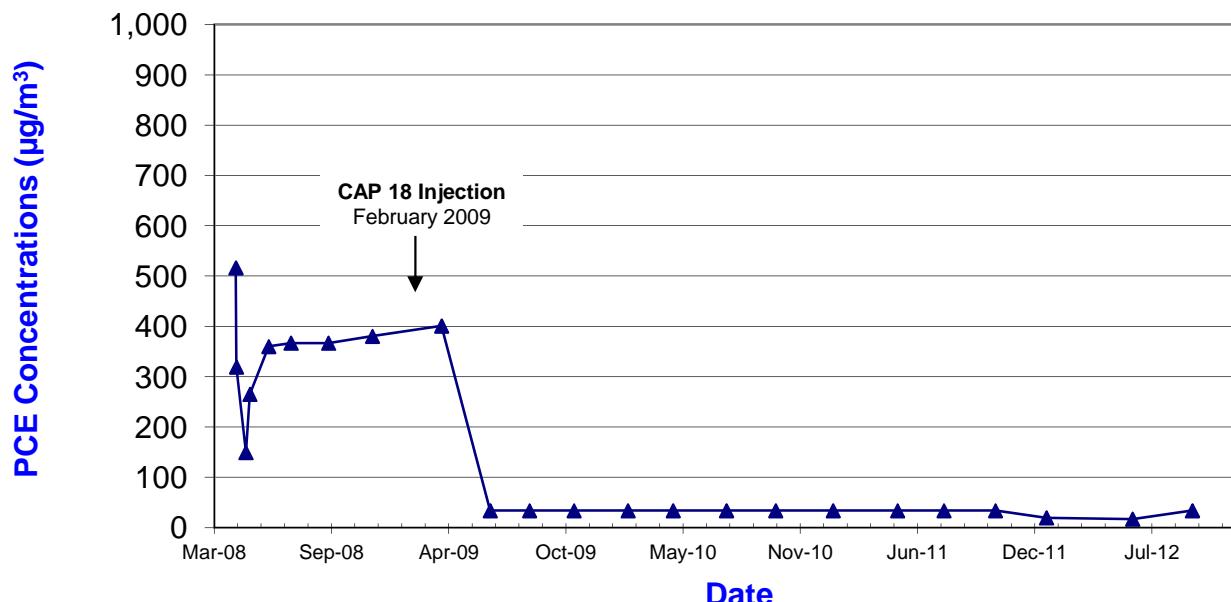
**PCE Vapor Concentrations Trend -  
Apartment Building 6 Vapor Mitigation System (B6)**



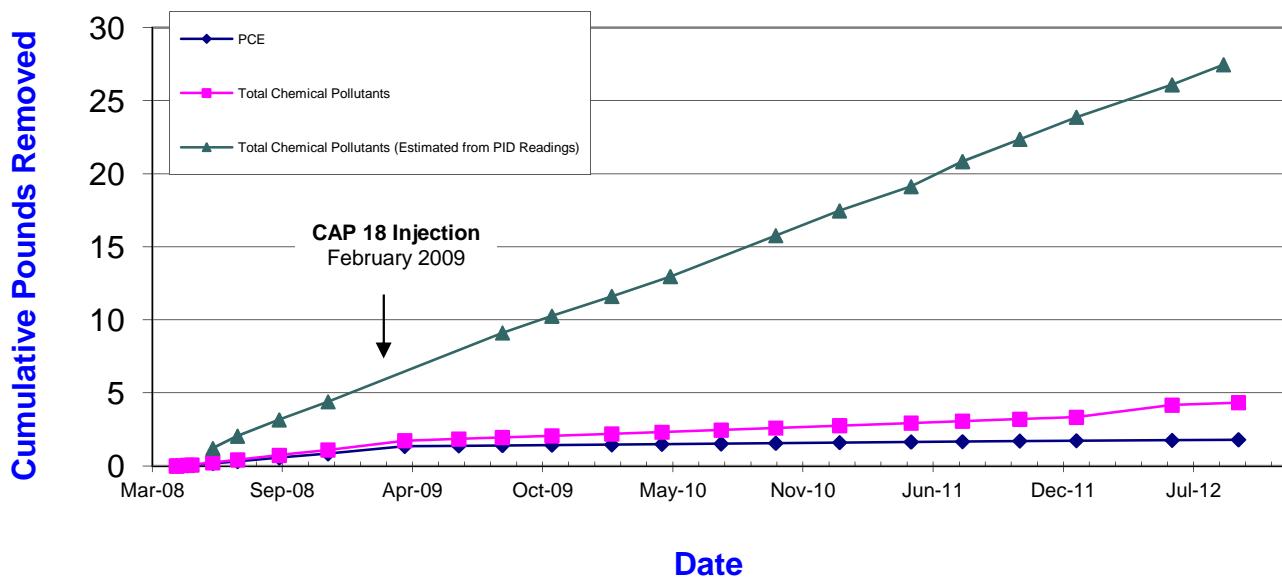
**Chemical Pounds Removed -  
Apartment Building 6 Vapor Mitigation System (B6)**



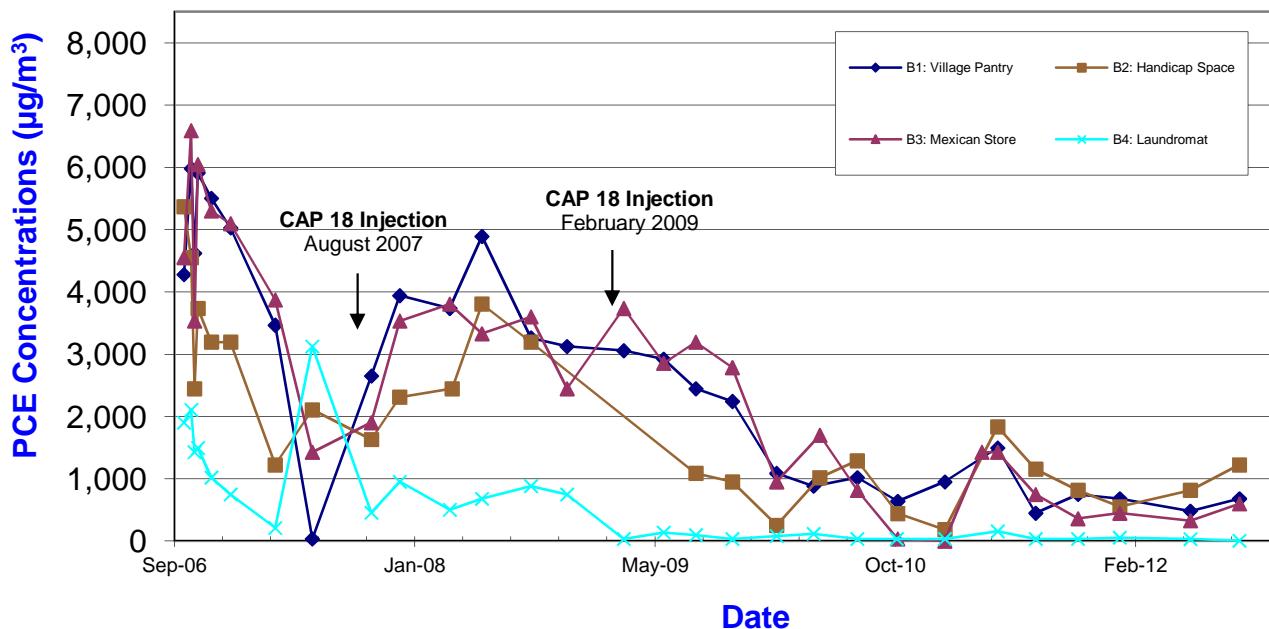
**PCE Vapor Concentrations Trend -  
Apartment Building 10 Vapor Mitigation System (B7)**



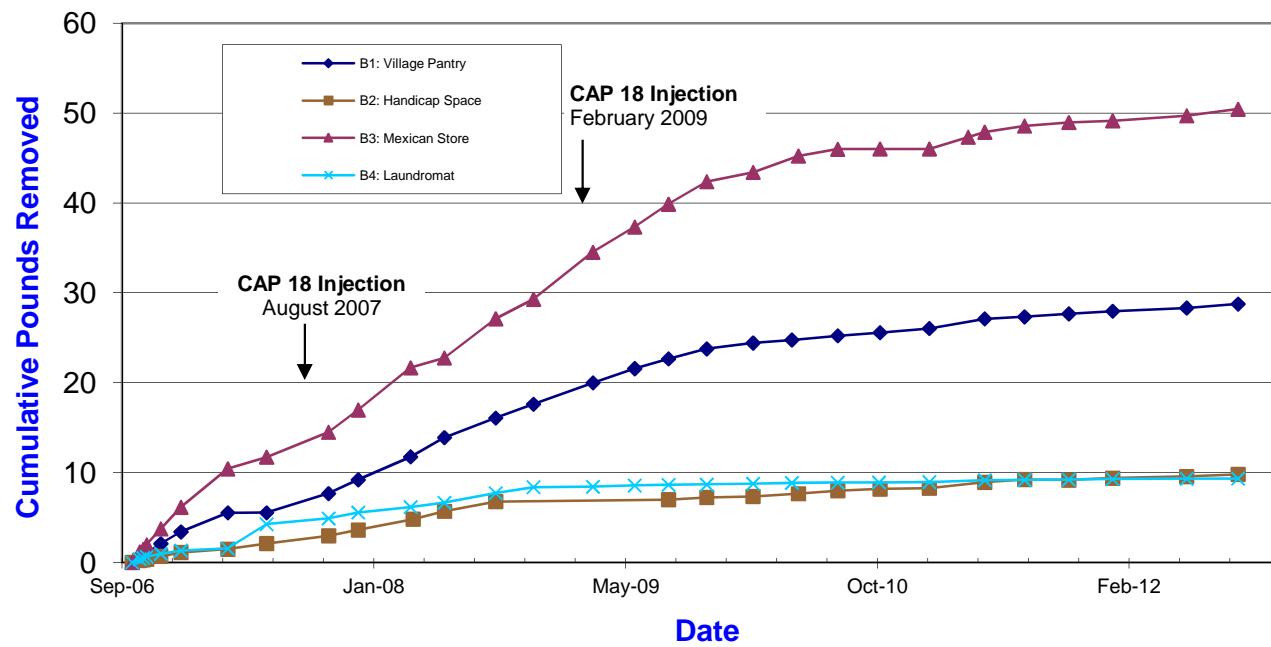
**Chemical Pounds Removed -  
Apartment Building 10 Vapor Mitigation System (B7)**



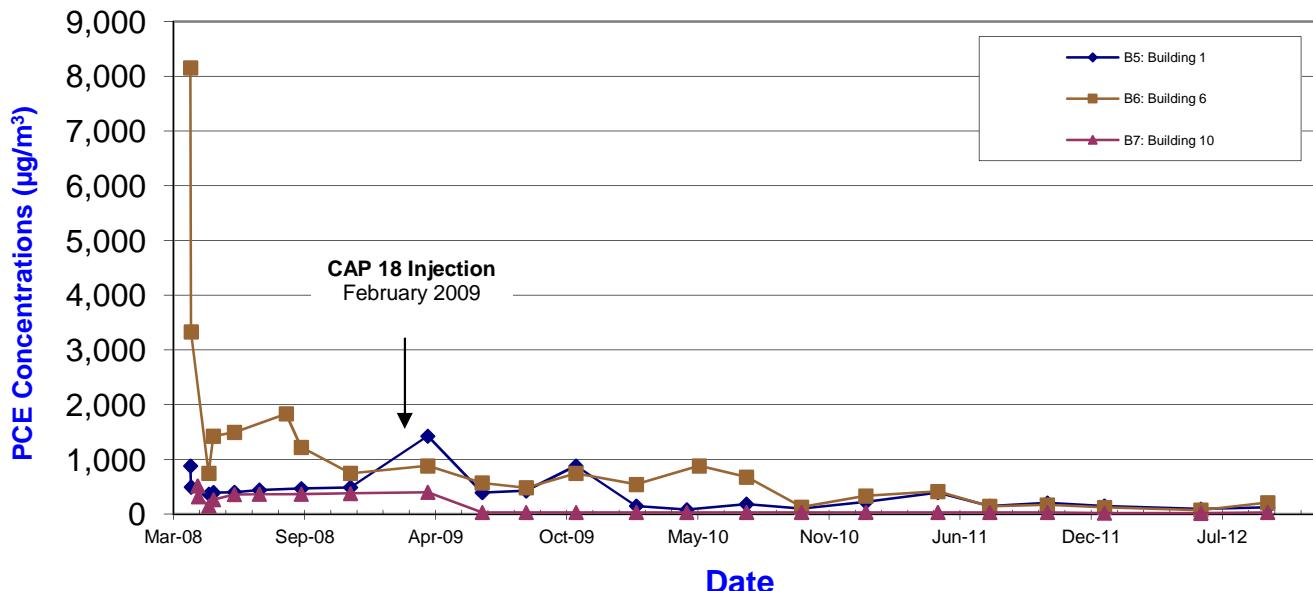
**PCE Concentrations Trend -  
Plaza Vapor Mitigation Systems (B1-B4)**



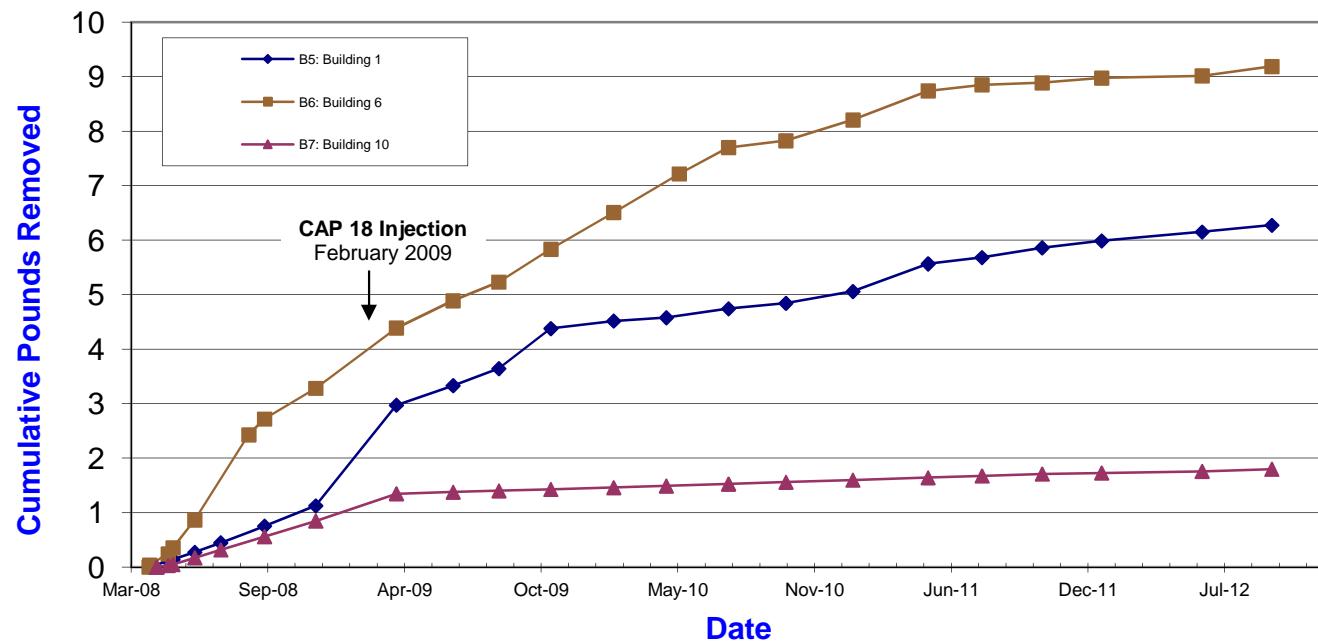
**PCE Pounds Removed -  
Plaza Vapor Mitigation Systems (B1-B4)**



**PCE Concentrations Trend -  
Apartment Vapor Mitigation Systems (B5-B7)**



**PCE Pounds Removed -  
Apartment Vapor Mitigation Systems (B5-B7)**



## **APPENDIX A**

### Laboratory Certificates of Analysis

August 14, 2012

Mr. Mark Breting  
Mundell & Associates  
110 S. Downey Ave.  
Indianapolis, IN 46228

RE: Project: MI Plaza M01046  
Pace Project No.: 5066955

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on August 02, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tina Sayer

tina.sayer@pacelabs.com  
Project Manager

Enclosures



#### **REPORT OF LABORATORY ANALYSIS**

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## CERTIFICATIONS

Project: MI Plaza M01046  
Pace Project No.: 5066955

---

### Indiana Certification IDs

7726 Moller Road, Indianapolis, IN 46268  
Illinois Certification #: 200074  
Indiana Certification #: C-49-06  
Kansas Certification #: E-10247  
Kentucky Certification #: 0042

Louisiana/NELAC Certification #: 04076  
Ohio VAP Certification #: CL0065  
Pennsylvania Certification #: 68-04991  
West Virginia Certification #: 330

### Ohio Certification IDs

1233 Dublin Road, Columbus, OH 43215  
Indiana Drinking Water Certification #: C-OH-11  
NVLAP Certification #: 90132

Ohio Drinking Water Certification #: 1030  
Ohio Microbiology Certification #: 943

## REPORT OF LABORATORY ANALYSIS

Page 2 of 28

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## SAMPLE SUMMARY

Project: MI Plaza M01046

Pace Project No.: 5066955

Lab ID	Sample ID	Matrix	Date Collected	Date Received
5066955001	MMW-6D	Water	07/31/12 11:55	08/02/12 10:20
5066955002	MMW-4D	Water	07/31/12 12:30	08/02/12 10:20
5066955003	MMW-13D	Water	07/31/12 13:03	08/02/12 10:20
5066955004	MMW-11S	Water	07/31/12 13:45	08/02/12 10:20
5066955005	MMW-11D	Water	07/31/12 14:15	08/02/12 10:20
5066955006	MMW-12S	Water	07/31/12 14:58	08/02/12 10:20
5066955007	MMW-14D	Water	07/31/12 15:43	08/02/12 10:20
5066955008	MMW-P-02	Water	08/01/12 09:53	08/02/12 10:20
5066955009	MMW-P-03D	Water	08/01/12 10:53	08/02/12 10:20
5066955010	MMW-P-03S	Water	08/01/12 11:37	08/02/12 10:20
5066955011	MMW-P-09S	Water	08/01/12 13:02	08/02/12 10:20
5066955012	MMW-P-09D	Water	08/01/12 13:26	08/02/12 10:20
5066955013	MMW-C-01	Water	08/01/12 14:29	08/02/12 10:20
5066955014	MMW-C-02S	Water	08/01/12 13:59	08/02/12 10:20
5066955015	Trip Blank	Water	08/01/12 08:00	08/02/12 10:20

## REPORT OF LABORATORY ANALYSIS

Page 3 of 28

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## SAMPLE ANALYTE COUNT

Project: MI Plaza M01046  
Pace Project No.: 5066955

Lab ID	Sample ID	Method	Analysts	Analytes Reported
5066955001	MMW-6D	EPA 8260	KMP	19
5066955002	MMW-4D	EPA 8260	KMP	19
5066955003	MMW-13D	EPA 8260	KMP	19
5066955004	MMW-11S	EPA 8260	KMP	19
5066955005	MMW-11D	EPA 8260	KMP	19
5066955006	MMW-12S	EPA 8260	KMP	19
5066955007	MMW-14D	EPA 8260	KMP	19
5066955008	MMW-P-02	EPA 8260	KMP	19
		SM 5310C	GR1	1
		EPA 353.2	ILP	1
		ASTM D516-90,02	TPD	1
5066955009	MMW-P-03D	EPA 8260	KMP	19
		SM 5310C	GR1	1
		EPA 353.2	ILP	1
		ASTM D516-90,02	TPD	1
5066955010	MMW-P-03S	EPA 8260	KMP	19
		SM 5310C	GR1	1
		EPA 353.2	ILP	1
		ASTM D516-90,02	TPD	1
5066955011	MMW-P-09S	EPA 8260	KMP	19
5066955012	MMW-P-09D	EPA 8260	KMP	19
5066955013	MMW-C-01	EPA 8260	KMP	19
		SM 5310C	GR1	1
		EPA 353.2	ILP	1
		ASTM D516-90,02	TPD	1
5066955014	MMW-C-02S	EPA 8260	JLZ	19
5066955015	Trip Blank	EPA 8260	JLZ	19

## REPORT OF LABORATORY ANALYSIS

Page 4 of 28

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## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5066955

Sample: MMW-6D	Lab ID: 5066955001	Collected: 07/31/12 11:55	Received: 08/02/12 10:20	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
n-Butylbenzene	ND	ug/L	5.0	1		08/03/12 16:41	104-51-8	
Carbon tetrachloride	ND	ug/L	5.0	1		08/03/12 16:41	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/03/12 16:41	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/03/12 16:41	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		08/03/12 16:41	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		08/03/12 16:41	156-60-5	
Isopropylbenzene (Cumene)	ND	ug/L	5.0	1		08/03/12 16:41	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		08/03/12 16:41	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/03/12 16:41	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		08/03/12 16:41	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/03/12 16:41	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/03/12 16:41	79-01-6	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		08/03/12 16:41	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		08/03/12 16:41	108-67-8	
Vinyl chloride	<b>38.1</b>	ug/L	2.0	1		08/03/12 16:41	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/03/12 16:41	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	94 %.		83-123	1		08/03/12 16:41	1868-53-7	
4-Bromofluorobenzene (S)	98 %.		72-125	1		08/03/12 16:41	460-00-4	
Toluene-d8 (S)	99 %.		81-114	1		08/03/12 16:41	2037-26-5	

## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5066955

Sample: MMW-4D	Lab ID: 5066955002	Collected: 07/31/12 12:30	Received: 08/02/12 10:20	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
n-Butylbenzene	ND	ug/L	5.0	1		08/03/12 17:14	104-51-8	
Carbon tetrachloride	ND	ug/L	5.0	1		08/03/12 17:14	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/03/12 17:14	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/03/12 17:14	75-35-4	
cis-1,2-Dichloroethene	347	ug/L	50.0	10		08/07/12 20:16	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		08/03/12 17:14	156-60-5	
Isopropylbenzene (Cumene)	ND	ug/L	5.0	1		08/03/12 17:14	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		08/03/12 17:14	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/03/12 17:14	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		08/03/12 17:14	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/03/12 17:14	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/03/12 17:14	79-01-6	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		08/03/12 17:14	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		08/03/12 17:14	108-67-8	
Vinyl chloride	129	ug/L	2.0	1		08/03/12 17:14	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/03/12 17:14	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	95 %.		83-123	1		08/03/12 17:14	1868-53-7	
4-Bromofluorobenzene (S)	97 %.		72-125	1		08/03/12 17:14	460-00-4	
Toluene-d8 (S)	98 %.		81-114	1		08/03/12 17:14	2037-26-5	

## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5066955

Sample: MMW-13D	Lab ID: 5066955003	Collected: 07/31/12 13:03	Received: 08/02/12 10:20	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
n-Butylbenzene	ND	ug/L	5.0	1		08/03/12 17:47	104-51-8	
Carbon tetrachloride	ND	ug/L	5.0	1		08/03/12 17:47	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/03/12 17:47	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/03/12 17:47	75-35-4	
cis-1,2-Dichloroethene	<b>684</b>	ug/L	50.0	10		08/07/12 20:49	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		08/03/12 17:47	156-60-5	
Isopropylbenzene (Cumene)	ND	ug/L	5.0	1		08/03/12 17:47	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		08/03/12 17:47	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/03/12 17:47	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		08/03/12 17:47	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/03/12 17:47	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/03/12 17:47	79-01-6	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		08/03/12 17:47	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		08/03/12 17:47	108-67-8	
Vinyl chloride	<b>147</b>	ug/L	2.0	1		08/03/12 17:47	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/03/12 17:47	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	97 %.		83-123	1		08/03/12 17:47	1868-53-7	
4-Bromofluorobenzene (S)	98 %.		72-125	1		08/03/12 17:47	460-00-4	
Toluene-d8 (S)	98 %.		81-114	1		08/03/12 17:47	2037-26-5	

## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5066955

Sample: MMW-11S	Lab ID: 5066955004	Collected: 07/31/12 13:45	Received: 08/02/12 10:20	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
n-Butylbenzene	ND	ug/L	5.0	1		08/03/12 18:20	104-51-8	
Carbon tetrachloride	ND	ug/L	5.0	1		08/03/12 18:20	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/03/12 18:20	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/03/12 18:20	75-35-4	
cis-1,2-Dichloroethene	<b>62.7</b>	ug/L	5.0	1		08/03/12 18:20	156-59-2	
trans-1,2-Dichloroethene	<b>5.4</b>	ug/L	5.0	1		08/03/12 18:20	156-60-5	
Isopropylbenzene (Cumene)	ND	ug/L	5.0	1		08/03/12 18:20	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		08/03/12 18:20	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/03/12 18:20	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		08/03/12 18:20	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/03/12 18:20	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/03/12 18:20	79-01-6	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		08/03/12 18:20	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		08/03/12 18:20	108-67-8	
Vinyl chloride	ND	ug/L	2.0	1		08/03/12 18:20	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/03/12 18:20	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	98 %.		83-123	1		08/03/12 18:20	1868-53-7	
4-Bromofluorobenzene (S)	99 %.		72-125	1		08/03/12 18:20	460-00-4	
Toluene-d8 (S)	98 %.		81-114	1		08/03/12 18:20	2037-26-5	

## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5066955

Sample: MMW-11D	Lab ID: 5066955005	Collected: 07/31/12 14:15	Received: 08/02/12 10:20	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
n-Butylbenzene	ND	ug/L	5.0	1		08/03/12 18:53	104-51-8	
Carbon tetrachloride	ND	ug/L	5.0	1		08/03/12 18:53	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/03/12 18:53	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/03/12 18:53	75-35-4	
cis-1,2-Dichloroethene	<b>310</b>	ug/L	50.0	10		08/07/12 21:55	156-59-2	
trans-1,2-Dichloroethene	<b>20.3</b>	ug/L	5.0	1		08/03/12 18:53	156-60-5	
Isopropylbenzene (Cumene)	ND	ug/L	5.0	1		08/03/12 18:53	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		08/03/12 18:53	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/03/12 18:53	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		08/03/12 18:53	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/03/12 18:53	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/03/12 18:53	79-01-6	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		08/03/12 18:53	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		08/03/12 18:53	108-67-8	
Vinyl chloride	<b>3.2</b>	ug/L	2.0	1		08/03/12 18:53	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/03/12 18:53	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	95 %.		83-123	1		08/03/12 18:53	1868-53-7	
4-Bromofluorobenzene (S)	99 %.		72-125	1		08/03/12 18:53	460-00-4	
Toluene-d8 (S)	99 %.		81-114	1		08/03/12 18:53	2037-26-5	

## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5066955

Sample: MMW-12S	Lab ID: 5066955006	Collected: 07/31/12 14:58	Received: 08/02/12 10:20	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
n-Butylbenzene	ND	ug/L	5.0	1		08/03/12 19:26	104-51-8	
Carbon tetrachloride	ND	ug/L	5.0	1		08/03/12 19:26	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/03/12 19:26	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/03/12 19:26	75-35-4	
cis-1,2-Dichloroethene	<b>46.9</b>	ug/L	5.0	1		08/03/12 19:26	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		08/03/12 19:26	156-60-5	
Isopropylbenzene (Cumene)	ND	ug/L	5.0	1		08/03/12 19:26	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		08/03/12 19:26	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/03/12 19:26	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		08/03/12 19:26	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/03/12 19:26	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/03/12 19:26	79-01-6	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		08/03/12 19:26	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		08/03/12 19:26	108-67-8	
Vinyl chloride	<b>3.0</b>	ug/L	2.0	1		08/03/12 19:26	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/03/12 19:26	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	97 %.		83-123	1		08/03/12 19:26	1868-53-7	
4-Bromofluorobenzene (S)	98 %.		72-125	1		08/03/12 19:26	460-00-4	
Toluene-d8 (S)	99 %.		81-114	1		08/03/12 19:26	2037-26-5	

## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5066955

Sample: MMW-14D	Lab ID: 5066955007	Collected: 07/31/12 15:43	Received: 08/02/12 10:20	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
n-Butylbenzene	ND	ug/L	5.0	1		08/03/12 19:59	104-51-8	
Carbon tetrachloride	ND	ug/L	5.0	1		08/03/12 19:59	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/03/12 19:59	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/03/12 19:59	75-35-4	
cis-1,2-Dichloroethene	795	ug/L	50.0	10		08/07/12 23:01	156-59-2	
trans-1,2-Dichloroethene	13.5	ug/L	5.0	1		08/03/12 19:59	156-60-5	
Isopropylbenzene (Cumene)	ND	ug/L	5.0	1		08/03/12 19:59	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		08/03/12 19:59	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/03/12 19:59	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		08/03/12 19:59	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/03/12 19:59	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/03/12 19:59	79-01-6	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		08/03/12 19:59	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		08/03/12 19:59	108-67-8	
Vinyl chloride	95.1	ug/L	2.0	1		08/03/12 19:59	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/03/12 19:59	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	96 %.		83-123	1		08/03/12 19:59	1868-53-7	
4-Bromofluorobenzene (S)	96 %.		72-125	1		08/03/12 19:59	460-00-4	
Toluene-d8 (S)	97 %.		81-114	1		08/03/12 19:59	2037-26-5	

## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5066955

Sample: MMW-P-02	Lab ID: 5066955008	Collected: 08/01/12 09:53	Received: 08/02/12 10:20	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
n-Butylbenzene	ND	ug/L	5.0	1		08/03/12 20:32	104-51-8	
Carbon tetrachloride	ND	ug/L	5.0	1		08/03/12 20:32	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/03/12 20:32	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/03/12 20:32	75-35-4	
cis-1,2-Dichloroethene	<b>34.2</b>	ug/L	5.0	1		08/03/12 20:32	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		08/03/12 20:32	156-60-5	
Isopropylbenzene (Cumene)	ND	ug/L	5.0	1		08/03/12 20:32	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		08/03/12 20:32	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/03/12 20:32	91-20-3	
Tetrachloroethene	<b>6.4</b>	ug/L	5.0	1		08/03/12 20:32	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/03/12 20:32	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/03/12 20:32	79-01-6	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		08/03/12 20:32	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		08/03/12 20:32	108-67-8	
Vinyl chloride	<b>257</b>	ug/L	2.0	1		08/03/12 20:32	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/03/12 20:32	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	96 %.		83-123	1		08/03/12 20:32	1868-53-7	
4-Bromofluorobenzene (S)	98 %.		72-125	1		08/03/12 20:32	460-00-4	
Toluene-d8 (S)	99 %.		81-114	1		08/03/12 20:32	2037-26-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	<b>2.3</b>	mg/L	0.30	1		08/03/12 19:23	7440-44-0	N2
<b>353.2 Nitrogen, NO<sub>2</sub>/NO<sub>3</sub> unpres</b>	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	ND	mg/L	0.10	1		08/03/12 08:25		
<b>ASTM D516-9002 Sulfate Water</b>	Analytical Method: ASTM D516-90,02							
Sulfate	<b>93.5</b>	mg/L	25.0	1		08/13/12 11:36	14808-79-8	N2

## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5066955

Sample: MMW-P-03D	Lab ID: 5066955009	Collected: 08/01/12 10:53	Received: 08/02/12 10:20	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
n-Butylbenzene	ND	ug/L	5.0	1		08/03/12 21:05	104-51-8	
Carbon tetrachloride	ND	ug/L	5.0	1		08/03/12 21:05	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/03/12 21:05	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/03/12 21:05	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		08/03/12 21:05	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		08/03/12 21:05	156-60-5	
Isopropylbenzene (Cumene)	ND	ug/L	5.0	1		08/03/12 21:05	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		08/03/12 21:05	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/03/12 21:05	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		08/03/12 21:05	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/03/12 21:05	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/03/12 21:05	79-01-6	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		08/03/12 21:05	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		08/03/12 21:05	108-67-8	
Vinyl chloride	175	ug/L	2.0	1		08/03/12 21:05	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/03/12 21:05	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	94 %.		83-123	1		08/03/12 21:05	1868-53-7	
4-Bromofluorobenzene (S)	100 %.		72-125	1		08/03/12 21:05	460-00-4	
Toluene-d8 (S)	99 %.		81-114	1		08/03/12 21:05	2037-26-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	7.3	mg/L	0.30	1		08/03/12 21:28	7440-44-0	N2
<b>353.2 Nitrogen, NO<sub>2</sub>/NO<sub>3</sub> unpres</b>	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	ND	mg/L	0.10	1		08/03/12 08:28		
<b>ASTM D516-9002 Sulfate Water</b>	Analytical Method: ASTM D516-90,02							
Sulfate	ND	mg/L	5.0	1		08/13/12 11:36	14808-79-8	N2

## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5066955

Sample: MMW-P-03S	Lab ID: 5066955010	Collected: 08/01/12 11:37	Received: 08/02/12 10:20	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
n-Butylbenzene	ND	ug/L	5.0	1		08/03/12 21:38	104-51-8	
Carbon tetrachloride	ND	ug/L	5.0	1		08/03/12 21:38	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/03/12 21:38	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/03/12 21:38	75-35-4	
cis-1,2-Dichloroethene	<b>16.1</b>	ug/L	5.0	1		08/03/12 21:38	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		08/03/12 21:38	156-60-5	
Isopropylbenzene (Cumene)	ND	ug/L	5.0	1		08/03/12 21:38	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		08/03/12 21:38	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/03/12 21:38	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		08/03/12 21:38	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/03/12 21:38	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/03/12 21:38	79-01-6	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		08/03/12 21:38	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		08/03/12 21:38	108-67-8	
Vinyl chloride	<b>294</b>	ug/L	2.0	1		08/03/12 21:38	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/03/12 21:38	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	95 %.		83-123	1		08/03/12 21:38	1868-53-7	
4-Bromofluorobenzene (S)	97 %.		72-125	1		08/03/12 21:38	460-00-4	
Toluene-d8 (S)	98 %.		81-114	1		08/03/12 21:38	2037-26-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	<b>3.4</b>	mg/L	0.30	1		08/03/12 21:51	7440-44-0	N2
<b>353.2 Nitrogen, NO<sub>2</sub>/NO<sub>3</sub> unpres</b>	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	ND	mg/L	0.10	1		08/03/12 08:29		
<b>ASTM D516-9002 Sulfate Water</b>	Analytical Method: ASTM D516-90,02							
Sulfate	<b>9.9</b>	mg/L	5.0	1		08/13/12 11:36	14808-79-8	N2

## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5066955

Sample: MMW-P-09S	Lab ID: 5066955011	Collected: 08/01/12 13:02	Received: 08/02/12 10:20	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
n-Butylbenzene	ND	ug/L	5.0	1		08/03/12 22:11	104-51-8	
Carbon tetrachloride	ND	ug/L	5.0	1		08/03/12 22:11	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/03/12 22:11	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/03/12 22:11	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		08/03/12 22:11	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		08/03/12 22:11	156-60-5	
Isopropylbenzene (Cumene)	ND	ug/L	5.0	1		08/03/12 22:11	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		08/03/12 22:11	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/03/12 22:11	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		08/03/12 22:11	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/03/12 22:11	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/03/12 22:11	79-01-6	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		08/03/12 22:11	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		08/03/12 22:11	108-67-8	
Vinyl chloride	ND	ug/L	2.0	1		08/03/12 22:11	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/03/12 22:11	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	93 %.		83-123	1		08/03/12 22:11	1868-53-7	
4-Bromofluorobenzene (S)	97 %.		72-125	1		08/03/12 22:11	460-00-4	
Toluene-d8 (S)	99 %.		81-114	1		08/03/12 22:11	2037-26-5	

## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5066955

Sample: MMW-P-09D	Lab ID: 5066955012	Collected: 08/01/12 13:26	Received: 08/02/12 10:20	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
n-Butylbenzene	ND	ug/L	5.0	1		08/03/12 22:44	104-51-8	
Carbon tetrachloride	ND	ug/L	5.0	1		08/03/12 22:44	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/03/12 22:44	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/03/12 22:44	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		08/03/12 22:44	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		08/03/12 22:44	156-60-5	
Isopropylbenzene (Cumene)	ND	ug/L	5.0	1		08/03/12 22:44	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		08/03/12 22:44	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/03/12 22:44	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		08/03/12 22:44	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/03/12 22:44	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/03/12 22:44	79-01-6	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		08/03/12 22:44	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		08/03/12 22:44	108-67-8	
Vinyl chloride	<b>69.2</b>	ug/L	2.0	1		08/03/12 22:44	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/03/12 22:44	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	93 %.		83-123	1		08/03/12 22:44	1868-53-7	
4-Bromofluorobenzene (S)	98 %.		72-125	1		08/03/12 22:44	460-00-4	
Toluene-d8 (S)	98 %.		81-114	1		08/03/12 22:44	2037-26-5	

## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5066955

Sample: MMW-C-01	Lab ID: 5066955013	Collected: 08/01/12 14:29	Received: 08/02/12 10:20	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
n-Butylbenzene	ND	ug/L	5.0	1		08/03/12 23:17	104-51-8	
Carbon tetrachloride	ND	ug/L	5.0	1		08/03/12 23:17	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/03/12 23:17	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/03/12 23:17	75-35-4	
cis-1,2-Dichloroethene	<b>8.9</b>	ug/L	5.0	1		08/03/12 23:17	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		08/03/12 23:17	156-60-5	
Isopropylbenzene (Cumene)	ND	ug/L	5.0	1		08/03/12 23:17	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		08/03/12 23:17	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/03/12 23:17	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		08/03/12 23:17	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/03/12 23:17	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/03/12 23:17	79-01-6	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		08/03/12 23:17	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		08/03/12 23:17	108-67-8	
Vinyl chloride	<b>29.2</b>	ug/L	2.0	1		08/03/12 23:17	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/03/12 23:17	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	95 %.		83-123	1		08/03/12 23:17	1868-53-7	
4-Bromofluorobenzene (S)	98 %.		72-125	1		08/03/12 23:17	460-00-4	
Toluene-d8 (S)	98 %.		81-114	1		08/03/12 23:17	2037-26-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	<b>2.5</b>	mg/L	0.30	1		08/03/12 22:22	7440-44-0	N2
<b>353.2 Nitrogen, NO<sub>2</sub>/NO<sub>3</sub> unpres</b>	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	ND	mg/L	0.10	1		08/03/12 08:30		
<b>ASTM D516-9002 Sulfate Water</b>	Analytical Method: ASTM D516-90,02							
Sulfate	<b>36.2</b>	mg/L	12.5	1		08/13/12 11:36	14808-79-8	N2

## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5066955

Sample: MMW-C-02S	Lab ID: 5066955014	Collected: 08/01/12 13:59	Received: 08/02/12 10:20	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
n-Butylbenzene	ND	ug/L	5.0	1		08/06/12 13:53	104-51-8	
Carbon tetrachloride	ND	ug/L	5.0	1		08/06/12 13:53	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/06/12 13:53	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/06/12 13:53	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		08/06/12 13:53	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		08/06/12 13:53	156-60-5	
Isopropylbenzene (Cumene)	ND	ug/L	5.0	1		08/06/12 13:53	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		08/06/12 13:53	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/06/12 13:53	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		08/06/12 13:53	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/06/12 13:53	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/06/12 13:53	79-01-6	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		08/06/12 13:53	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		08/06/12 13:53	108-67-8	
Vinyl chloride	ND	ug/L	2.0	1		08/06/12 13:53	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/06/12 13:53	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	103 %.		83-123	1		08/06/12 13:53	1868-53-7	
4-Bromofluorobenzene (S)	99 %.		72-125	1		08/06/12 13:53	460-00-4	
Toluene-d8 (S)	99 %.		81-114	1		08/06/12 13:53	2037-26-5	

## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5066955

Sample: Trip Blank	Lab ID: 5066955015	Collected: 08/01/12 08:00	Received: 08/02/12 10:20	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
n-Butylbenzene	ND	ug/L	5.0	1		08/06/12 13:21	104-51-8	
Carbon tetrachloride	ND	ug/L	5.0	1		08/06/12 13:21	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/06/12 13:21	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/06/12 13:21	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		08/06/12 13:21	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		08/06/12 13:21	156-60-5	
Isopropylbenzene (Cumene)	ND	ug/L	5.0	1		08/06/12 13:21	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		08/06/12 13:21	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/06/12 13:21	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		08/06/12 13:21	127-18-4	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/06/12 13:21	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/06/12 13:21	79-01-6	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		08/06/12 13:21	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	1		08/06/12 13:21	108-67-8	
Vinyl chloride	ND	ug/L	2.0	1		08/06/12 13:21	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/06/12 13:21	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	100 %.		83-123	1		08/06/12 13:21	1868-53-7	
4-Bromofluorobenzene (S)	102 %.		72-125	1		08/06/12 13:21	460-00-4	
Toluene-d8 (S)	103 %.		81-114	1		08/06/12 13:21	2037-26-5	



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## **QUALITY CONTROL DATA**

Project: MI Plaza M01046

Pace Project No.: 5066955

QC Batch: MSV/44551

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: 8260 MSV

Associated Lab Samples: 5066955001, 5066955002, 5066955003, 5066955004, 5066955005, 5066955006, 5066955007, 5066955008, 5066955009, 5066955010, 5066955011, 5066955012, 5066955013

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METHOD BLANK: 776253

## Matrix: Water

Associated Lab Samples: 5066955001, 5066955002, 5066955003, 5066955004, 5066955005, 5066955006, 5066955007, 5066955008, 5066955009, 5066955010, 5066955011, 5066955012, 5066955013

Parameter	Units	Blank	Reporting	Analyzed	Qualifiers
		Result	Limit		
1,1,1-Trichloroethane	ug/L	ND	5.0	08/03/12 12:51	
1,1-Dichloroethene	ug/L	ND	5.0	08/03/12 12:51	
1,2,4-Trimethylbenzene	ug/L	ND	5.0	08/03/12 12:51	
1,3,5-Trimethylbenzene	ug/L	ND	5.0	08/03/12 12:51	
Carbon tetrachloride	ug/L	ND	5.0	08/03/12 12:51	
Chloroform	ug/L	ND	5.0	08/03/12 12:51	
cis-1,2-Dichloroethene	ug/L	ND	5.0	08/03/12 12:51	
Isopropylbenzene (Cumene)	ug/L	ND	5.0	08/03/12 12:51	
Methylene Chloride	ug/L	ND	5.0	08/03/12 12:51	
n-Butylbenzene	ug/L	ND	5.0	08/03/12 12:51	
Naphthalene	ug/L	ND	5.0	08/03/12 12:51	
Tetrachloroethene	ug/L	ND	5.0	08/03/12 12:51	
trans-1,2-Dichloroethene	ug/L	ND	5.0	08/03/12 12:51	
Trichloroethene	ug/L	ND	5.0	08/03/12 12:51	
Vinyl chloride	ug/L	ND	2.0	08/03/12 12:51	
Xylene (Total)	ug/L	ND	10.0	08/03/12 12:51	
4-Bromofluorobenzene (S)	%.	97	72-125	08/03/12 12:51	
Dibromofluoromethane (S)	%.	95	83-123	08/03/12 12:51	
Toluene-d8 (S)	%.	98	81-114	08/03/12 12:51	

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LABORATORY CONTROL SAMPLE: 776254

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	43.5	87	69-126	
1,1-Dichloroethene	ug/L	50	49.5	99	75-145	
1,2,4-Trimethylbenzene	ug/L	50	52.9	106	68-129	
1,3,5-Trimethylbenzene	ug/L	50	45.6	91	69-129	
Carbon tetrachloride	ug/L	50	38.0	76	65-125	
Chloroform	ug/L	50	55.1	110	73-122	
cis-1,2-Dichloroethene	ug/L	50	49.5	99	79-129	
Isopropylbenzene (Cumene)	ug/L	50	44.2	88	73-123	
Methylene Chloride	ug/L	50	52.0	104	61-138	
n-Butylbenzene	ug/L	50	43.9	88	69-130	
Naphthalene	ug/L	50	46.3	93	62-130	
Tetrachloroethene	ug/L	50	48.2	96	57-125	
trans-1,2-Dichloroethene	ug/L	50	47.3	95	71-145	
Trichloroethene	ug/L	50	49.3	99	77-122	
Vinyl chloride	ug/L	50	37.4	75	61-146	
Xylene (Total)	ug/L	150	158	105	72-126	
4-Bromofluorobenzene (S)	%.			101	72-125	

Date: 08/14/2012 04:59 PM

## **REPORT OF LABORATORY ANALYSIS**

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## QUALITY CONTROL DATA

Project: MI Plaza M01046

Pace Project No.: 5066955

**LABORATORY CONTROL SAMPLE:** 776254

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dibromofluoromethane (S)	%. %			97 99	83-123 81-114	
Toluene-d8 (S)						

**MATRIX SPIKE SAMPLE:** 776255

Parameter	Units	5066958001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L		ND	50	44.4	89	37-136
1,1-Dichloroethene	ug/L		ND	50	52.5	105	54-152
1,2,4-Trimethylbenzene	ug/L		ND	50	51.1	102	10-141
1,3,5-Trimethylbenzene	ug/L		ND	50	44.5	89	10-145
Carbon tetrachloride	ug/L		ND	50	38.5	77	26-136
Chloroform	ug/L		ND	50	54.4	109	50-134
cis-1,2-Dichloroethene	ug/L		ND	50	50.4	101	48-145
Isopropylbenzene (Cumene)	ug/L		ND	50	43.2	86	11-146
Methylene Chloride	ug/L		ND	50	48.7	97	47-141
n-Butylbenzene	ug/L		ND	50	43.5	87	10-156
Naphthalene	ug/L		ND	50	43.3	78	40-124
Tetrachloroethene	ug/L		ND	50	47.4	95	30-124
trans-1,2-Dichloroethene	ug/L		ND	50	48.8	98	48-144
Trichloroethene	ug/L		ND	50	50.3	101	44-130
Vinyl chloride	ug/L		ND	50	40.9	82	45-159
Xylene (Total)	ug/L		ND	150	153	102	29-131
4-Bromofluorobenzene (S)	%. %					100	72-125
Dibromofluoromethane (S)	%. %					100	83-123
Toluene-d8 (S)						99	81-114



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## **QUALITY CONTROL DATA**

Project: MI Plaza M01046

Pace Project No.: 5066955

QC Batch: MSV/44616

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: 8260 MSV

Associated Lab Samples: 5066955014, 5066955015

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METHOD BLANK: 777410

## Matrix: Water

Associated Lab Samples: 5066955014, 5066955015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	5.0	08/06/12 12:49	
1,1-Dichloroethene	ug/L	ND	5.0	08/06/12 12:49	
1,2,4-Trimethylbenzene	ug/L	ND	5.0	08/06/12 12:49	
1,3,5-Trimethylbenzene	ug/L	ND	5.0	08/06/12 12:49	
Carbon tetrachloride	ug/L	ND	5.0	08/06/12 12:49	
Chloroform	ug/L	ND	5.0	08/06/12 12:49	
cis-1,2-Dichloroethene	ug/L	ND	5.0	08/06/12 12:49	
Isopropylbenzene (Cumene)	ug/L	ND	5.0	08/06/12 12:49	
Methylene Chloride	ug/L	ND	5.0	08/06/12 12:49	
n-Butylbenzene	ug/L	ND	5.0	08/06/12 12:49	
Naphthalene	ug/L	ND	5.0	08/06/12 12:49	
Tetrachloroethene	ug/L	ND	5.0	08/06/12 12:49	
trans-1,2-Dichloroethene	ug/L	ND	5.0	08/06/12 12:49	
Trichloroethene	ug/L	ND	5.0	08/06/12 12:49	
Vinyl chloride	ug/L	ND	2.0	08/06/12 12:49	
Xylene (Total)	ug/L	ND	10.0	08/06/12 12:49	
4-Bromofluorobenzene (S)	%.	98	72-125	08/06/12 12:49	
Dibromofluoromethane (S)	%.	102	83-123	08/06/12 12:49	
Toluene-d8 (S)	%.	100	81-114	08/06/12 12:49	

LABORATORY CONTROL SAMPLE: 777411

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	58.8	118	69-126	
1,1-Dichloroethene	ug/L	50	52.2	104	75-145	
1,2,4-Trimethylbenzene	ug/L	50	53.3	107	68-129	
1,3,5-Trimethylbenzene	ug/L	50	52.7	105	69-129	
Carbon tetrachloride	ug/L	50	52.7	105	65-125	
Chloroform	ug/L	50	52.6	105	73-122	
cis-1,2-Dichloroethene	ug/L	50	53.0	106	79-129	
Isopropylbenzene (Cumene)	ug/L	50	53.0	106	73-123	
Methylene Chloride	ug/L	50	50.6	101	61-138	
n-Butylbenzene	ug/L	50	55.4	111	69-130	
Naphthalene	ug/L	50	51.1	102	62-130	
Tetrachloroethene	ug/L	50	55.5	111	57-125	
trans-1,2-Dichloroethene	ug/L	50	51.3	103	71-145	
Trichloroethene	ug/L	50	52.6	105	77-122	
Vinyl chloride	ug/L	50	43.7	87	61-146	
Xylene (Total)	ug/L	150	158	106	72-126	
4-Bromofluorobenzene (S)	%.			102	72-125	
Dibromofluoromethane (S)	%.			103	83-123	

Date: 08/14/2012 04:59 PM

## **REPORT OF LABORATORY ANALYSIS**

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## QUALITY CONTROL DATA

Project: MI Plaza M01046

Pace Project No.: 5066955

LABORATORY CONTROL SAMPLE: 777411

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Toluene-d8 (S)	%.			101	81-114	



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(614)486-5421

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dianapolis, IN 46268  
(317)875-5894

## **QUALITY CONTROL DATA**

Project: MI Plaza M01046

Pace Project No.: 5066955

QC Batch: OHIO/3653 Analysis Method: SM 5310C  
QC Batch Method: SM 5310C Analysis Description: 5310C TOC  
Associated Lab Samples: 5066955008, 5066955009, 5066955010, 5066955013

METHOD BLANK: 776664 Matrix: Water

Associated Lab Samples: 5066955008, 5066955009, 5066955010, 5066955013

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	0.30	08/03/12 18:28	N2

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LABORATORY CONTROL SAMPLE: 776665

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	5	4.9	99	80-120	N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 776667 776668

Parameter	5066955008		MS		MSD						Max RPD	Qual
	Units	Result	Spike Conc.	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD		
Total Organic Carbon	mg/L	2.3	4	4	6.3	6.3	99	100	75-125	.3	20	N2

---

SAMPLE DUPLICATE: 776666

Parameter	Units	5066955008 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Organic Carbon	mg/L	2.3	2.3	.4	20	N2

## QUALITY CONTROL DATA

Project: MI Plaza M01046

Pace Project No.: 5066955

QC Batch:	WETA/8418	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, Unpres.
Associated Lab Samples:	5066955008, 5066955009, 5066955010, 5066955013		

METHOD BLANK: 775846   Matrix: Water

Associated Lab Samples: 5066955008, 5066955009, 5066955010, 5066955013

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	08/03/12 08:20	

LABORATORY CONTROL SAMPLE: 775847

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	2	2.0	100	90-110	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 775848   775849

Parameter	Units	5066955008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Max RPD	Max Qual
Nitrogen, Nitrate	mg/L	ND	2	2	1.8	1.8	86	89	90-110	3	20	M3



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## **QUALITY CONTROL DATA**

Project: MI Plaza M01046

Pace Project No.: 5066955

QC Batch: WETA/8453 Analysis Method: ASTM D516-90,02  
QC Batch Method: ASTM D516-90,02 Analysis Description: ASTM D516-9002 Sulfate Water  
Associated Lab Samples: 5066955008, 5066955009, 5066955010, 5066955013

METHOD BLANK: 780553 Matrix: Water

Associated Lab Samples: 5066955008, 5066955009, 5066955010, 5066955013

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	ND	5.0	08/13/12 11:36	N2

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LABORATORY CONTROL SAMPLE: 780554

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	20	21.0	105	90-110	N2

MATRIX SPIKE SAMPLE: 780555

Parameter	Units	5065572003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/l	1480	2000	3840	118	90-110	M0,N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 780556 780557

Parameter	5067022001		MS	MSD	MS	MSD	MS	MSD	% Rec	% Rec	Max	
	Units	Result	Spike Conc.	Spike Conc.								Qual
Sulfate	mg/L	90.5	200	200	323	318	116	114	90-110	2	20	M3,N2

## QUALIFIERS

Project: MI Plaza M01046

Pace Project No.: 5066955

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

M3 Matrix spike recovery was outside laboratory control limits due to matrix interferences.

N2 The lab does not hold TNI accreditation for this parameter.

**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: MI Plaza M01046  
Pace Project No.: 5066955

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
5066955001	MMW-6D	EPA 8260	MSV/44551		
5066955002	MMW-4D	EPA 8260	MSV/44551		
5066955003	MMW-13D	EPA 8260	MSV/44551		
5066955004	MMW-11S	EPA 8260	MSV/44551		
5066955005	MMW-11D	EPA 8260	MSV/44551		
5066955006	MMW-12S	EPA 8260	MSV/44551		
5066955007	MMW-14D	EPA 8260	MSV/44551		
5066955008	MMW-P-02	EPA 8260	MSV/44551		
5066955009	MMW-P-03D	EPA 8260	MSV/44551		
5066955010	MMW-P-03S	EPA 8260	MSV/44551		
5066955011	MMW-P-09S	EPA 8260	MSV/44551		
5066955012	MMW-P-09D	EPA 8260	MSV/44551		
5066955013	MMW-C-01	EPA 8260	MSV/44551		
5066955014	MMW-C-02S	EPA 8260	MSV/44616		
5066955015	Trip Blank	EPA 8260	MSV/44616		
5066955008	MMW-P-02	SM 5310C	OHIO/3653		
5066955009	MMW-P-03D	SM 5310C	OHIO/3653		
5066955010	MMW-P-03S	SM 5310C	OHIO/3653		
5066955013	MMW-C-01	SM 5310C	OHIO/3653		
5066955008	MMW-P-02	EPA 353.2	WETA/8418		
5066955009	MMW-P-03D	EPA 353.2	WETA/8418		
5066955010	MMW-P-03S	EPA 353.2	WETA/8418		
5066955013	MMW-C-01	EPA 353.2	WETA/8418		
5066955008	MMW-P-02	ASTM D516-90,02	WETA/8453		
5066955009	MMW-P-03D	ASTM D516-90,02	WETA/8453		
5066955010	MMW-P-03S	ASTM D516-90,02	WETA/8453		
5066955013	MMW-C-01	ASTM D516-90,02	WETA/8453		



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**CHAIN-OF-CUSTODY / Analytical Request Document**

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		Section B Required Project Information:																																																																																																																					
<p>Company: <b>Murdell &amp; Assoc.</b></p> <p>Address: <b>110 S. Dominy</b></p> <p>Email To: <b>T-aps, Inc.</b></p> <p>Phone: <b></b></p> <p>Requested Due Date/TAT: <b>5/5</b></p>		<p>Report To: <b>Mark Breckin</b></p> <p>Copy To: <b></b></p> <p>Purchase Order No.: <b></b></p> <p>Project Name: <b>M1 Q624</b></p> <p>Project Number: <b>M1046</b></p>																																																																																																																					
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<b>1. MAM - C - 01</b>	<b>8/11/12</b>	<b>2:39</b>	<b>8/11/12</b>	<b>1:11</b>																																																																																																																			
<b>2. MAM - C - 02 3</b>	<b>8/11/12</b>	<b>1:59</b>	<b>8/11/12</b>	<b>1:59</b>																																																																																																																			
<b>3. Trip Black</b>																																																																																																																							
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12																																																																																																																							
ADDITIONAL COMMENTS																																																																																																																							
<p>PRINT Name of SAMPLER: <b>Jody Damrey</b></p> <p>SIGNATURE of SAMPLER: <b>Jody Damrey</b></p> <p>ORIGINAL</p>																																																																																																																							
<p>Temp in °C: <b></b></p> <p>Received on: <b></b></p> <p>Custodial Codes (Y/N): <b></b></p> <p>Sealed Container (Y/N): <b></b></p> <p>Samples Intercept (Y/N): <b></b></p> <p>Page: <b>2 of 2</b></p>																																																																																																																							
<p>E-AU-O-02 Rev 07-45-May-2007</p> <p>*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.</p>																																																																																																																							

## Sample Condition Upon Receipt

Pace Analytical

Client Name: Mundell

Project # 5066955

Courier:  FedEx  UPS  USPS  Client  Commercial  Pace  Other

Tracking #:

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  noPacking Material:  Bubble Wrap  Bubble Bags  None  Other foam

Date/Time 5035A kits placed in freezer

Thermometer Used 1 2 3 4 5 A B C D E

Type of Ice: Wet Blue None  Samples on ice, cooling process has begunCooler Temperature 5.6C  
(Corrected, if applicable)Ice Visible in Sample Containers:  yes  no

Temp should be above freezing to 6°C

Comments:

Date and Initials of person examining contents: 10/8/12

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC: <u>10/8/12</u>	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	5.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sample Labels match COC: -Includes date/time/ID/Analysis	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
All containers needing acid/base pres. have been checked? exceptions: VOA, coliform, TOC, O&G	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	9. (Circle) HNO3 H <sub>2</sub> SO4 NaOH HCl
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Headspace in VOA Vials (>6mm):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10. <u>Trip Blank (1)</u>
Trip Blank Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	

## Project Manager Review

Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	14.

## Client Notification/ Resolution:

Field Data Required?

Y / N

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

Project Manager Review:	<u>y Lang</u>
-------------------------	---------------

Date: 8/2/12

# Sample Container Count

CLIENT: M. Snell

COC PAGE 1 of 2  
COC ID#

Project # SO66955

Face Analytical  
www.analytical.com

## Sample Container Count

Sample Line Item	DG9H	AG1U	WG FU	AG0U	R 4 / 6	BP2N	BP2U	BP2S	BP3N	BP3U	BP3S	AG3S	AG1H	Comments
1	2													
2														
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														

## Container Codes

DG9H	40mL HCl amber vial	AG0U	100mL unpreserved amber glass	BP1N	1 liter HNO3 plastic	BP1N	1 liter HNO3 plastic	BP1S	1 liter H2SO4 plastic	BP1S	1 liter H2SO4 plastic	DG9S	40mL H2SO4 amber vial
AG1U	1liter unpreserved amber glass	AG1H	1 liter HCl amber glass	BP1U	1 liter H2SO4 amber glass	BP1U	1 liter H2SO4 amber glass	BP1U	1 liter unpreserved plastic	BP1U	1 liter unpreserved plastic	DG9T	40mL Na Thio amber vial
WG FU	4oz clear soil jar	AG1S	1 liter H2SO4 amber glass	BP1Z	1 liter Na Thiosulfate amber gl	BP1Z	1 liter Na Thiosulfate amber gl	BP1Z	1 liter NaOH, Zn, Ac	BP1Z	1 liter NaOH, Zn, Ac	DG9U	40mL unpreserved amber vial
R	terra core kit	AG1T	1 liter Na Thiosulfate amber gl	BP2A	500mL HNO3 amber glass	BP2A	500mL NaOH, Asc Acid plastic	BP2A	500mL NaOH, Asc Acid plastic	BP2A	500mL NaOH, Asc Acid plastic	JGFU	Wipe/Swab
BP2N	500mL HNO3 plastic	AG2N	500mL HNO3 amber glass	BP2O	500mL NaOH plastic	BP2O	500mL NaOH plastic	BP2O	500mL NaOH plastic	BP2O	500mL NaOH plastic	JGFU	4oz unpreserved amber wide
BP2U	500mL unpreserved plastic	AG2S	500mL H2SO4 amber glass	BP2Z	500mL NaOH, Zn Ac	BP2Z	500mL NaOH, Zn Ac	BP2Z	500mL NaOH, Zn Ac	BP2Z	500mL NaOH, Zn Ac	U	Summa Can
BP2S	500mL H2SO4 plastic	AG2U	500mL unpreserved amber gla	AF	Air Filter	AF	Air Filter	AF	Air Filter	AF	Air Filter	VG9H	40mL HCL clear vial
BP3N	250mL HNO3 plastic	AG3U	250mL unpreserved amber gla	BP3C	250mL NaOH plastic	BP3C	250mL NaOH plastic	BP3C	250mL NaOH plastic	BP3C	250mL NaOH plastic	VG9T	40mL Na Thio. clear vial
BP3U	250mL unpreserved plastic	BG1H	1 liter HCL clear glass	BP3Z	250mL NaOH, Zn Ac plastic	BP3Z	250mL NaOH, Zn Ac plastic	BP3Z	250mL NaOH, Zn Ac plastic	BP3Z	250mL NaOH, Zn Ac plastic	VG9U	40mL unpreserved clear vial
BP3S	250mL H2SO4 plastic	BG1S	1 liter H2SO4 clear glass	C	Air Cassettes	C	Air Cassettes	C	Air Cassettes	C	Air Cassettes	VSG	Headspace septa vial & HCL
AG3S	250mL H2SO4 glass amber	BG1T	1 liter Na Thiosulfate clear gla	DG9B	40mL Na Bisulfite amber vial	DG9B	40mL Na Bisulfite amber vial	DG9B	40mL Na Bisulfite amber vial	DG9B	40mL Na Bisulfite amber vial	WGFX	4oz wide jar w/hexane wipe
AG1S	1 liter H2SO4 amber glass	BG1U	1 liter unpreserved glass	DG9M	40mL MeOH clear vial	DG9M	40mL MeOH clear vial	DG9M	40mL MeOH clear vial	DG9M	40mL MeOH clear vial	ZPLC	Ziploc Bag

CLIENT: Mundell  
 COC PAGE 2 of 2  
 COC ID# \_\_\_\_\_

## Sample Container Count

Project # SO66955



1994- Present 2010

Sample Line Item	DG9H	AG1U	WGFU	AG0U	R 4 / 6	BP2N	BP2U	BP2S	BP3N	BP3U	BP3S	AG3S	AG1H	Comments
1	3					1								
2	3													
3	3													
4														
5														
6														
7														
8														
9														
10														
11														
12														

### Container Codes

DG9H	40mL HCl amber vqa vial	AG0U	100mL unpreserved amber glass	BP1N	1 liter HNO3 plastic	DG9P	40mL TSP amber vial
AG1U	1liter unpreserved amber glass	AG1H	1 liter HCl amber glass	BP1S	1 liter H2SO4 plastic	DG9S	40mL H2SO4 amber vial
WGFU	4oz clear soil jar	AG1S	1 liter H2SO4 amber glass	BP1U	1 liter unpreserved plastic	DG9T	40mL Na Thio amber vial
R terra core kit		AG1T	1 liter Na Thiosulfate amber gl	BP1Z	1 liter NaOH, Zn, Ac	DG9U	40mL unpreserved amber vial
BP2N	500mL HNO3 plastic	AG2N	500mL HNO3 amber glass	BP2A	500mL NaOH, Asc Acid plastic	I Wipe/Swab	
BP2U	500mL unpreserved plastic	AG2S	500mL H2SO4 amber glass	BP2O	500mL NaOH plastic	JGFU	4oz unpreserved amber wide
BP2S	500mL H2SO4 plastic	AG2U	500mL unpreserved amber gla	BP2Z	500mL NaOH, Zn Ac	U Summa Can	
BP3N	250mL HNO3 plastic	AG3U	250mL unpreserved amber gla	AF	Air Filter	VG9H	40mL HCL clear vial
BP3U	250mL unpreserved plastic	BG1H	1 liter HCl clear glass	BP3C	250mL NaOH plastic	VG9T	40mL Na Thio, clear vial
BP3S	250mL H2SO4 plastic	BG1S	1 liter H2SO4 clear glass	BP3Z	250mL NaOH, Zn Ac plastic	VGSU	40mL unpreserved clear vial
AG3S	250mL H2SO4 glass amber	BG1T	1 liter Na Thiosulfate clear gla	C	Air Cassette	VSG	Headspace septa vial & HCL
AG1S	1 liter H2SO4 amber glass	BG1U	1 liter unpreserved glass	DG9B	40mL Na Bisulfate amber vial	WGFX	4oz wide jar w/hexane wipe
BP1U	1 liter unpreserved plastic	BP1A	1 liter NaOH, Asc Acid plastic	DG9M	40mL MeOH clear vial	ZPLC	Ziploc Bag

August 16, 2012

Mr. Mark Breting  
Mundell & Associates  
110 S. Downey Ave.  
Indianapolis, IN 46228

RE: Project: MI Plaza M01046  
Pace Project No.: 5067022

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on August 03, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Tina Sayer

tina.sayer@pacelabs.com  
Project Manager

Enclosures



#### REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: MI Plaza M01046  
Pace Project No.: 5067022

---

### Indiana Certification IDs

7726 Moller Road, Indianapolis, IN 46268  
Illinois Certification #: 200074  
Indiana Certification #: C-49-06  
Kansas Certification #: E-10247  
Kentucky Certification #: 0042

Louisiana/NELAC Certification #: 04076  
Ohio VAP Certification #: CL0065  
Pennsylvania Certification #: 68-04991  
West Virginia Certification #: 330

### Ohio Certification IDs

1233 Dublin Road, Columbus, OH 43215  
Indiana Drinking Water Certification #: C-OH-11  
NVLAP Certification #: 90132

Ohio Microbiology Certification #: 943  
Ohio Drinking Water Certification #: 1030

## REPORT OF LABORATORY ANALYSIS

Page 2 of 27

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## SAMPLE SUMMARY

Project: MI Plaza M01046

Pace Project No.: 5067022

Lab ID	Sample ID	Matrix	Date Collected	Date Received
5067022001	MMW-9S	Water	08/02/12 08:56	08/03/12 10:10
5067022002	MMW-10S	Water	08/02/12 09:35	08/03/12 10:10
5067022003	MMW-1S	Water	08/02/12 10:09	08/03/12 10:10
5067022004	MMW-8S	Water	08/02/12 10:39	08/03/12 10:10
5067022005	MMW-P-05	Water	08/02/12 11:43	08/03/12 10:10
5067022006	MMW-P-10S	Water	08/02/12 12:17	08/03/12 10:10
5067022007	MMW-P-10D	Water	08/02/12 12:55	08/03/12 10:10
5067022008	MMW-P-08	Water	08/02/12 13:34	08/03/12 10:10
5067022009	MMW-P-07	Water	08/02/12 14:04	08/03/12 10:10
5067022010	MMW-P-01	Water	08/02/12 14:35	08/03/12 10:10
5067022011	MMW-P-06	Water	08/02/12 15:06	08/03/12 10:10
5067022012	Dup-2	Water	08/02/12 08:00	08/03/12 10:10
5067022013	Trip Blank	Water	08/02/12 08:00	08/03/12 10:10

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE ANALYTE COUNT

Project: MI Plaza M01046  
Pace Project No.: 5067022

Lab ID	Sample ID	Method	Analysts	Analytes Reported
5067022001	<b>MMW-9S</b>	EPA 8260	JLZ	18
		SM 5310C	GR1	1
		EPA 353.2	ILP	1
		ASTM D516-90,02	TPD	1
5067022002	<b>MMW-10S</b>	EPA 8260	JLZ	18
		SM 5310C	GR1	1
		EPA 353.2	ILP	1
		ASTM D516-90,02	TPD	1
5067022003	<b>MMW-1S</b>	EPA 8260	JLZ	18
		SM 5310C	GR1	1
		EPA 353.2	ILP	1
		ASTM D516-90,02	TPD	1
5067022004	<b>MMW-8S</b>	EPA 8260	JLZ	18
		SM 5310C	GR1	1
		EPA 353.2	ILP	1
		ASTM D516-90,02	TPD	1
5067022005	<b>MMW-P-05</b>	EPA 8260	JLZ	18
		SM 5310C	GR1	1
		EPA 353.2	ILP	1
		ASTM D516-90,02	TPD	1
5067022006	<b>MMW-P-10S</b>	EPA 8260	JLZ	18
		SM 5310C	GR1	1
		EPA 353.2	ILP	1
		ASTM D516-90,02	TPD	1
5067022007	<b>MMW-P-10D</b>	EPA 8260	JLZ	18
		SM 5310C	GR1	1
		EPA 353.2	ILP	1
		ASTM D516-90,02	TPD	1
5067022008	<b>MMW-P-08</b>	EPA 8260	JLZ	18
		SM 5310C	GR1	1
		EPA 353.2	ILP	1
		ASTM D516-90,02	TPD	1
5067022009	<b>MMW-P-07</b>	EPA 8260	JLZ	18
		SM 5310C	GR1	1
		EPA 353.2	ILP	1
		ASTM D516-90,02	TPD	1
5067022010	<b>MMW-P-01</b>	EPA 8260	JLZ	18

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE ANALYTE COUNT

Project: MI Plaza M01046  
Pace Project No.: 5067022

Lab ID	Sample ID	Method	Analysts	Analytes Reported
5067022011	MMW-P-06	SM 5310C	GR1	1
		EPA 353.2	ILP	1
		ASTM D516-90,02	TPD	1
		EPA 8260	JLZ	18
		SM 5310C	GR1	1
		EPA 353.2	ILP	1
5067022012	Dup-2	ASTM D516-90,02	TPD	1
		EPA 8260	JLZ	18
		SM 5310C	GR1	1
		EPA 353.2	ILP	1
5067022013	Trip Blank	ASTM D516-90,02	TPD	1
		EPA 8260	JLZ	18

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5067022

Sample: MMW-9S	Lab ID: 5067022001	Collected: 08/02/12 08:56	Received: 08/03/12 10:10	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		08/07/12 22:14	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		08/07/12 22:14	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/07/12 22:14	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/07/12 22:14	75-35-4	
cis-1,2-Dichloroethene	140	ug/L	5.0	1		08/07/12 22:14	156-59-2	
trans-1,2-Dichloroethene	30.2	ug/L	5.0	1		08/07/12 22:14	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		08/07/12 22:14	100-41-4	
Methylene Chloride	ND	ug/L	5.0	1		08/07/12 22:14	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/07/12 22:14	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		08/07/12 22:14	127-18-4	
Toluene	ND	ug/L	5.0	1		08/07/12 22:14	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/07/12 22:14	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/07/12 22:14	79-01-6	
Vinyl chloride	667	ug/L	40.0	20		08/08/12 01:58	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/07/12 22:14	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	103 %.		83-123	1		08/07/12 22:14	1868-53-7	
4-Bromofluorobenzene (S)	98 %.		72-125	1		08/07/12 22:14	460-00-4	
Toluene-d8 (S)	98 %.		81-114	1		08/07/12 22:14	2037-26-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	4.0	mg/L	0.30	1		08/14/12 03:43	7440-44-0	N2
<b>353.2 Nitrogen, NO<sub>2</sub>/NO<sub>3</sub> unpres</b>	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	ND	mg/L	0.10	1		08/03/12 14:44		
<b>ASTM D516-9002 Sulfate Water</b>	Analytical Method: ASTM D516-90,02							
Sulfate	90.5	mg/L	50.0	1		08/13/12 11:36	14808-79-8	N2

## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5067022

Sample: MMW-10S	Lab ID: 5067022002	Collected: 08/02/12 09:35	Received: 08/03/12 10:10	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		08/07/12 16:54	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		08/07/12 16:54	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/07/12 16:54	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/07/12 16:54	75-35-4	
cis-1,2-Dichloroethene	111	ug/L	5.0	1		08/07/12 16:54	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		08/07/12 16:54	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		08/07/12 16:54	100-41-4	
Methylene Chloride	ND	ug/L	5.0	1		08/07/12 16:54	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/07/12 16:54	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		08/07/12 16:54	127-18-4	
Toluene	ND	ug/L	5.0	1		08/07/12 16:54	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/07/12 16:54	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/07/12 16:54	79-01-6	
Vinyl chloride	256	ug/L	2.0	1		08/07/12 16:54	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/07/12 16:54	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	104 %.		83-123	1		08/07/12 16:54	1868-53-7	
4-Bromofluorobenzene (S)	99 %.		72-125	1		08/07/12 16:54	460-00-4	
Toluene-d8 (S)	95 %.		81-114	1		08/07/12 16:54	2037-26-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	4.6	mg/L	0.30	1		08/14/12 05:35	7440-44-0	N2
<b>353.2 Nitrogen, NO<sub>2</sub>/NO<sub>3</sub> unpres</b>	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	ND	mg/L	0.10	1		08/03/12 14:47		
<b>ASTM D516-9002 Sulfate Water</b>	Analytical Method: ASTM D516-90,02							
Sulfate	260	mg/L	125	1		08/13/12 11:36	14808-79-8	N2

## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5067022

Sample: MMW-1S	Lab ID: 5067022003	Collected: 08/02/12 10:09	Received: 08/03/12 10:10	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		08/07/12 17:26	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		08/07/12 17:26	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/07/12 17:26	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/07/12 17:26	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		08/07/12 17:26	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		08/07/12 17:26	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		08/07/12 17:26	100-41-4	
Methylene Chloride	ND	ug/L	5.0	1		08/07/12 17:26	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/07/12 17:26	91-20-3	
Tetrachloroethene	292	ug/L	100	20		08/08/12 11:33	127-18-4	
Toluene	ND	ug/L	5.0	1		08/07/12 17:26	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/07/12 17:26	71-55-6	
Trichloroethene	27.9	ug/L	5.0	1		08/07/12 17:26	79-01-6	
Vinyl chloride	28.5	ug/L	2.0	1		08/07/12 17:26	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/07/12 17:26	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	102 %.		83-123	1		08/07/12 17:26	1868-53-7	
4-Bromofluorobenzene (S)	95 %.		72-125	1		08/07/12 17:26	460-00-4	
Toluene-d8 (S)	92 %.		81-114	1		08/07/12 17:26	2037-26-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	2.3	mg/L	0.30	1		08/14/12 06:06	7440-44-0	N2
<b>353.2 Nitrogen, NO<sub>2</sub>/NO<sub>3</sub> unpres</b>	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	ND	mg/L	0.10	1		08/03/12 14:48		
<b>ASTM D516-9002 Sulfate Water</b>	Analytical Method: ASTM D516-90,02							
Sulfate	122	mg/L	50.0	1		08/13/12 11:36	14808-79-8	N2

## ANALYTICAL RESULTS

Project: MI Plaza M01046  
Pace Project No.: 5067022

Sample: MMW-8S	Lab ID: 5067022004	Collected: 08/02/12 10:39	Received: 08/03/12 10:10	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		08/07/12 14:14	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		08/07/12 14:14	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/07/12 14:14	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/07/12 14:14	75-35-4	
cis-1,2-Dichloroethene	<b>8.5</b>	ug/L	5.0	1		08/07/12 14:14	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		08/07/12 14:14	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		08/07/12 14:14	100-41-4	
Methylene Chloride	ND	ug/L	5.0	1		08/07/12 14:14	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/07/12 14:14	91-20-3	
Tetrachloroethene	<b>5.1</b>	ug/L	5.0	1		08/07/12 14:14	127-18-4	
Toluene	ND	ug/L	5.0	1		08/07/12 14:14	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/07/12 14:14	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/07/12 14:14	79-01-6	
Vinyl chloride	<b>139</b>	ug/L	2.0	1		08/07/12 14:14	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/07/12 14:14	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	102 %.		83-123	1		08/07/12 14:14	1868-53-7	
4-Bromofluorobenzene (S)	97 %.		72-125	1		08/07/12 14:14	460-00-4	
Toluene-d8 (S)	95 %.		81-114	1		08/07/12 14:14	2037-26-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	<b>1.9</b>	mg/L	0.30	1		08/14/12 06:38	7440-44-0	N2
<b>353.2 Nitrogen, NO<sub>2</sub>/NO<sub>3</sub> unpres</b>	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	ND	mg/L	0.10	1		08/03/12 14:50		
<b>ASTM D516-9002 Sulfate Water</b>	Analytical Method: ASTM D516-90,02							
Sulfate	<b>160</b>	mg/L	25.0	1		08/13/12 11:36	14808-79-8	N2

## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5067022

Sample: MMW-P-05	Lab ID: 5067022005	Collected: 08/02/12 11:43	Received: 08/03/12 10:10	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		08/07/12 14:46	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		08/07/12 14:46	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/07/12 14:46	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/07/12 14:46	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		08/07/12 14:46	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		08/07/12 14:46	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		08/07/12 14:46	100-41-4	
Methylene Chloride	ND	ug/L	5.0	1		08/07/12 14:46	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/07/12 14:46	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		08/07/12 14:46	127-18-4	
Toluene	ND	ug/L	5.0	1		08/07/12 14:46	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/07/12 14:46	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/07/12 14:46	79-01-6	
Vinyl chloride	157	ug/L	2.0	1		08/07/12 14:46	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/07/12 14:46	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	102 %.		83-123	1		08/07/12 14:46	1868-53-7	
4-Bromofluorobenzene (S)	100 %.		72-125	1		08/07/12 14:46	460-00-4	
Toluene-d8 (S)	98 %.		81-114	1		08/07/12 14:46	2037-26-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	1.5	mg/L	0.30	1		08/14/12 07:09	7440-44-0	N2
<b>353.2 Nitrogen, NO<sub>2</sub>/NO<sub>3</sub> unpres</b>	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	ND	mg/L	0.10	1		08/03/12 14:51		
<b>ASTM D516-9002 Sulfate Water</b>	Analytical Method: ASTM D516-90,02							
Sulfate	39.1	mg/L	5.0	1		08/13/12 11:36	14808-79-8	N2

## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5067022

Sample: MMW-P-10S	Lab ID: 5067022006	Collected: 08/02/12 12:17	Received: 08/03/12 10:10	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		08/07/12 15:18	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		08/07/12 15:18	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/07/12 15:18	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/07/12 15:18	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		08/07/12 15:18	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		08/07/12 15:18	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		08/07/12 15:18	100-41-4	
Methylene Chloride	ND	ug/L	5.0	1		08/07/12 15:18	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/07/12 15:18	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		08/07/12 15:18	127-18-4	
Toluene	ND	ug/L	5.0	1		08/07/12 15:18	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/07/12 15:18	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/07/12 15:18	79-01-6	
Vinyl chloride	26.8	ug/L	2.0	1		08/07/12 15:18	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/07/12 15:18	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	103 %.		83-123	1		08/07/12 15:18	1868-53-7	
4-Bromofluorobenzene (S)	97 %.		72-125	1		08/07/12 15:18	460-00-4	
Toluene-d8 (S)	99 %.		81-114	1		08/07/12 15:18	2037-26-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	3.6	mg/L	0.30	1		08/14/12 07:41	7440-44-0	N2
<b>353.2 Nitrogen, NO<sub>2</sub>/NO<sub>3</sub> unpres</b>	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	ND	mg/L	0.10	1		08/03/12 14:56		
<b>ASTM D516-9002 Sulfate Water</b>	Analytical Method: ASTM D516-90,02							
Sulfate	116	mg/L	25.0	1		08/13/12 11:36	14808-79-8	N2

## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5067022

Sample: MMW-P-10D	Lab ID: 5067022007	Collected: 08/02/12 12:55	Received: 08/03/12 10:10	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		08/07/12 17:58	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		08/07/12 17:58	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/07/12 17:58	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/07/12 17:58	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		08/07/12 17:58	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		08/07/12 17:58	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		08/07/12 17:58	100-41-4	
Methylene Chloride	ND	ug/L	5.0	1		08/07/12 17:58	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/07/12 17:58	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		08/07/12 17:58	127-18-4	
Toluene	ND	ug/L	5.0	1		08/07/12 17:58	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/07/12 17:58	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/07/12 17:58	79-01-6	
Vinyl chloride	475	ug/L	40.0	20		08/08/12 03:34	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/07/12 17:58	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	102 %.		83-123	1		08/07/12 17:58	1868-53-7	
4-Bromofluorobenzene (S)	98 %.		72-125	1		08/07/12 17:58	460-00-4	
Toluene-d8 (S)	100 %.		81-114	1		08/07/12 17:58	2037-26-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	2.9	mg/L	0.30	1		08/14/12 08:13	7440-44-0	N2
<b>353.2 Nitrogen, NO<sub>2</sub>/NO<sub>3</sub> unpres</b>	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	ND	mg/L	0.10	1		08/03/12 14:57		
<b>ASTM D516-9002 Sulfate Water</b>	Analytical Method: ASTM D516-90,02							
Sulfate	87.5	mg/L	25.0	1		08/13/12 11:36	14808-79-8	N2

## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5067022

Sample: MMW-P-08	Lab ID: 5067022008	Collected: 08/02/12 13:34	Received: 08/03/12 10:10	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		08/07/12 15:50	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		08/07/12 15:50	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/07/12 15:50	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/07/12 15:50	75-35-4	
cis-1,2-Dichloroethene	<b>879</b>	ug/L	100	20		08/08/12 09:57	156-59-2	
trans-1,2-Dichloroethene	<b>13.9</b>	ug/L	5.0	1		08/07/12 15:50	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		08/07/12 15:50	100-41-4	
Methylene Chloride	ND	ug/L	5.0	1		08/07/12 15:50	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/07/12 15:50	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		08/07/12 15:50	127-18-4	
Toluene	ND	ug/L	5.0	1		08/07/12 15:50	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/07/12 15:50	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/07/12 15:50	79-01-6	
Vinyl chloride	<b>561</b>	ug/L	40.0	20		08/08/12 09:57	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/07/12 15:50	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	101 %.		83-123	1		08/07/12 15:50	1868-53-7	
4-Bromofluorobenzene (S)	99 %.		72-125	1		08/07/12 15:50	460-00-4	
Toluene-d8 (S)	96 %.		81-114	1		08/07/12 15:50	2037-26-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	<b>3.9</b>	mg/L	0.30	1		08/14/12 08:45	7440-44-0	N2
<b>353.2 Nitrogen, NO<sub>2</sub>/NO<sub>3</sub> unpres</b>	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	ND	mg/L	0.10	1		08/03/12 14:58		
<b>ASTM D516-9002 Sulfate Water</b>	Analytical Method: ASTM D516-90,02							
Sulfate	<b>48.2</b>	mg/L	25.0	1		08/13/12 11:36	14808-79-8	N2

## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5067022

Sample: MMW-P-07	Lab ID: 5067022009	Collected: 08/02/12 14:04	Received: 08/03/12 10:10	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		08/07/12 18:30	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		08/07/12 18:30	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/07/12 18:30	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/07/12 18:30	75-35-4	
cis-1,2-Dichloroethene	33.7	ug/L	5.0	1		08/07/12 18:30	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		08/07/12 18:30	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		08/07/12 18:30	100-41-4	
Methylene Chloride	ND	ug/L	5.0	1		08/07/12 18:30	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/07/12 18:30	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		08/07/12 18:30	127-18-4	
Toluene	ND	ug/L	5.0	1		08/07/12 18:30	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/07/12 18:30	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/07/12 18:30	79-01-6	
Vinyl chloride	405	ug/L	40.0	20		08/08/12 04:06	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/07/12 18:30	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	103 %.		83-123	1		08/07/12 18:30	1868-53-7	
4-Bromofluorobenzene (S)	100 %.		72-125	1		08/07/12 18:30	460-00-4	
Toluene-d8 (S)	95 %.		81-114	1		08/07/12 18:30	2037-26-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	3.5	mg/L	0.30	1		08/14/12 09:17	7440-44-0	N2
<b>353.2 Nitrogen, NO<sub>2</sub>/NO<sub>3</sub> unpres</b>	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	ND	mg/L	0.10	1		08/03/12 14:59		
<b>ASTM D516-9002 Sulfate Water</b>	Analytical Method: ASTM D516-90,02							
Sulfate	30.5	mg/L	12.5	1		08/15/12 13:15	14808-79-8	N2

## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5067022

Sample: MMW-P-01	Lab ID: 5067022010	Collected: 08/02/12 14:35	Received: 08/03/12 10:10	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		08/07/12 19:02	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		08/07/12 19:02	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/07/12 19:02	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/07/12 19:02	75-35-4	
cis-1,2-Dichloroethene	377	ug/L	100	20		08/07/12 19:34	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		08/07/12 19:02	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		08/07/12 19:02	100-41-4	
Methylene Chloride	ND	ug/L	5.0	1		08/07/12 19:02	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/07/12 19:02	91-20-3	
Tetrachloroethene	12.0	ug/L	5.0	1		08/07/12 19:02	127-18-4	
Toluene	ND	ug/L	5.0	1		08/07/12 19:02	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/07/12 19:02	71-55-6	
Trichloroethene	8.0	ug/L	5.0	1		08/07/12 19:02	79-01-6	
Vinyl chloride	1680	ug/L	40.0	20		08/07/12 19:34	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/07/12 19:02	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	104 %.		83-123	1		08/07/12 19:02	1868-53-7	
4-Bromofluorobenzene (S)	99 %.		72-125	1		08/07/12 19:02	460-00-4	
Toluene-d8 (S)	98 %.		81-114	1		08/07/12 19:02	2037-26-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	4.5	mg/L	0.30	1		08/14/12 09:50	7440-44-0	N2
<b>353.2 Nitrogen, NO<sub>2</sub>/NO<sub>3</sub> unpres</b>	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	ND	mg/L	0.10	1		08/03/12 15:00		
<b>ASTM D516-9002 Sulfate Water</b>	Analytical Method: ASTM D516-90,02							
Sulfate	45.8	mg/L	12.5	1		08/15/12 13:15	14808-79-8	N2

## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5067022

Sample: MMW-P-06	Lab ID: 5067022011	Collected: 08/02/12 15:06	Received: 08/03/12 10:10	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
Benzene	ND	ug/L	25.0	5		08/07/12 20:06	71-43-2	
Carbon tetrachloride	ND	ug/L	25.0	5		08/07/12 20:06	56-23-5	
Chloroform	ND	ug/L	25.0	5		08/07/12 20:06	67-66-3	
1,1-Dichloroethene	ND	ug/L	25.0	5		08/07/12 20:06	75-35-4	
cis-1,2-Dichloroethene	<b>6420</b>	ug/L	500	100		08/07/12 20:38	156-59-2	
trans-1,2-Dichloroethene	<b>47.0</b>	ug/L	25.0	5		08/07/12 20:06	156-60-5	
Ethylbenzene	ND	ug/L	25.0	5		08/07/12 20:06	100-41-4	
Methylene Chloride	ND	ug/L	25.0	5		08/07/12 20:06	75-09-2	
Naphthalene	ND	ug/L	25.0	5		08/07/12 20:06	91-20-3	
Tetrachloroethene	ND	ug/L	25.0	5		08/07/12 20:06	127-18-4	
Toluene	ND	ug/L	25.0	5		08/07/12 20:06	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	25.0	5		08/07/12 20:06	71-55-6	
Trichloroethene	ND	ug/L	25.0	5		08/07/12 20:06	79-01-6	
Vinyl chloride	<b>6510</b>	ug/L	200	100		08/07/12 20:38	75-01-4	
Xylene (Total)	ND	ug/L	50.0	5		08/07/12 20:06	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	100 %.		83-123	5		08/07/12 20:06	1868-53-7	
4-Bromofluorobenzene (S)	98 %.		72-125	5		08/07/12 20:06	460-00-4	
Toluene-d8 (S)	95 %.		81-114	5		08/07/12 20:06	2037-26-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	<b>3.7</b>	mg/L	0.30	1		08/14/12 11:16	7440-44-0	N2
<b>353.2 Nitrogen, NO<sub>2</sub>/NO<sub>3</sub> unpres</b>	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	ND	mg/L	0.10	1		08/03/12 15:01		
<b>ASTM D516-9002 Sulfate Water</b>	Analytical Method: ASTM D516-90,02							
Sulfate	<b>54.5</b>	mg/L	12.5	1		08/15/12 13:15	14808-79-8	N2

## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5067022

Sample: Dup-2	Lab ID: 5067022012	Collected: 08/02/12 08:00	Received: 08/03/12 10:10	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		08/07/12 21:10	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		08/07/12 21:10	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/07/12 21:10	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/07/12 21:10	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		08/07/12 21:10	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		08/07/12 21:10	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		08/07/12 21:10	100-41-4	
Methylene Chloride	ND	ug/L	5.0	1		08/07/12 21:10	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/07/12 21:10	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		08/07/12 21:10	127-18-4	
Toluene	ND	ug/L	5.0	1		08/07/12 21:10	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/07/12 21:10	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/07/12 21:10	79-01-6	
Vinyl chloride	27.7	ug/L	2.0	1		08/07/12 21:10	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/07/12 21:10	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	105 %.		83-123	1		08/07/12 21:10	1868-53-7	
4-Bromofluorobenzene (S)	99 %.		72-125	1		08/07/12 21:10	460-00-4	
Toluene-d8 (S)	97 %.		81-114	1		08/07/12 21:10	2037-26-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	3.5	mg/L	0.30	1		08/14/12 11:48	7440-44-0	N2
<b>353.2 Nitrogen, NO<sub>2</sub>/NO<sub>3</sub> unpres</b>	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	ND	mg/L	0.10	1		08/03/12 14:43		
<b>ASTM D516-9002 Sulfate Water</b>	Analytical Method: ASTM D516-90,02							
Sulfate	94.0	mg/L	25.0	1		08/15/12 13:15	14808-79-8	N2

## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5067022

Sample: Trip Blank	Lab ID: 5067022013	Collected: 08/02/12 08:00	Received: 08/03/12 10:10	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		08/07/12 16:22	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		08/07/12 16:22	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/07/12 16:22	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/07/12 16:22	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		08/07/12 16:22	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		08/07/12 16:22	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		08/07/12 16:22	100-41-4	
Methylene Chloride	ND	ug/L	5.0	1		08/07/12 16:22	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/07/12 16:22	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		08/07/12 16:22	127-18-4	
Toluene	ND	ug/L	5.0	1		08/07/12 16:22	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/07/12 16:22	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/07/12 16:22	79-01-6	
Vinyl chloride	ND	ug/L	2.0	1		08/07/12 16:22	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/07/12 16:22	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	101 %.		83-123	1		08/07/12 16:22	1868-53-7	
4-Bromofluorobenzene (S)	101 %.		72-125	1		08/07/12 16:22	460-00-4	
Toluene-d8 (S)	100 %.		81-114	1		08/07/12 16:22	2037-26-5	

## QUALITY CONTROL DATA

Project: MI Plaza M01046

Pace Project No.: 5067022

QC Batch:	MSV/44663	Analysis Method:	EPA 8260
QC Batch Method:	EPA 8260	Analysis Description:	8260 MSV
Associated Lab Samples:	5067022001, 5067022002, 5067022003, 5067022004, 5067022005, 5067022006, 5067022007, 5067022008, 5067022009, 5067022010, 5067022011, 5067022012, 5067022013		

METHOD BLANK: 777817                                  Matrix: Water

Associated Lab Samples: 5067022001, 5067022002, 5067022003, 5067022004, 5067022005, 5067022006, 5067022007, 5067022008,  
5067022009, 5067022010, 5067022011, 5067022012, 5067022013

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	5.0	08/07/12 13:10	
1,1-Dichloroethene	ug/L	ND	5.0	08/07/12 13:10	
Benzene	ug/L	ND	5.0	08/07/12 13:10	
Carbon tetrachloride	ug/L	ND	5.0	08/07/12 13:10	
Chloroform	ug/L	ND	5.0	08/07/12 13:10	
cis-1,2-Dichloroethene	ug/L	ND	5.0	08/07/12 13:10	
Ethylbenzene	ug/L	ND	5.0	08/07/12 13:10	
Methylene Chloride	ug/L	ND	5.0	08/07/12 13:10	
Naphthalene	ug/L	ND	5.0	08/07/12 13:10	
Tetrachloroethene	ug/L	ND	5.0	08/07/12 13:10	
Toluene	ug/L	ND	5.0	08/07/12 13:10	
trans-1,2-Dichloroethene	ug/L	ND	5.0	08/07/12 13:10	
Trichloroethene	ug/L	ND	5.0	08/07/12 13:10	
Vinyl chloride	ug/L	ND	2.0	08/07/12 13:10	
Xylene (Total)	ug/L	ND	10.0	08/07/12 13:10	
4-Bromofluorobenzene (S)	%.	98	72-125	08/07/12 13:10	
Dibromofluoromethane (S)	%.	101	83-123	08/07/12 13:10	
Toluene-d8 (S)	%.	94	81-114	08/07/12 13:10	

LABORATORY CONTROL SAMPLE: 777818

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	57.7	115	69-126	
1,1-Dichloroethene	ug/L	50	51.7	103	75-145	
Benzene	ug/L	50	49.0	98	76-123	
Carbon tetrachloride	ug/L	50	52.3	105	65-125	
Chloroform	ug/L	50	53.2	106	73-122	
cis-1,2-Dichloroethene	ug/L	50	51.1	102	79-129	
Ethylbenzene	ug/L	50	48.2	96	75-120	
Methylene Chloride	ug/L	50	51.9	104	61-138	
Naphthalene	ug/L	50	42.0	84	62-130	
Tetrachloroethene	ug/L	50	50.1	100	57-125	
Toluene	ug/L	50	46.8	94	72-124	
trans-1,2-Dichloroethene	ug/L	50	50.9	102	71-145	
Trichloroethene	ug/L	50	53.1	106	77-122	
Vinyl chloride	ug/L	50	41.2	82	61-146	
Xylene (Total)	ug/L	150	146	97	72-126	
4-Bromofluorobenzene (S)	%.			100	72-125	
Dibromofluoromethane (S)	%.			103	83-123	
Toluene-d8 (S)	%.			97	81-114	

Date: 08/16/2012 04:57 PM

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: MI Plaza M01046

Pace Project No.: 5067022

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 777819      777820

Parameter	Units	Result	MS	MSD	MS	MSD	MS	MSD	% Rec	% Rec	Max	
			Spike Conc.	Spike Conc.							RPD	RPD
1,1,1-Trichloroethane	ug/L	ND	50	50	54.2	52.4	108	105	37-136	3	20	
1,1-Dichloroethene	ug/L	ND	50	50	49.3	45.7	99	91	54-152	8	20	
Benzene	ug/L	ND	50	50	43.8	43.3	88	87	52-134	1	20	
Carbon tetrachloride	ug/L	ND	50	50	51.3	47.6	103	95	26-136	7	20	
Chloroform	ug/L	ND	50	50	49.4	49.6	99	99	50-134	.5	20	
cis-1,2-Dichloroethene	ug/L	140	50	50	185	183	89	84	48-145	1	20	
Ethylbenzene	ug/L	ND	50	50	43.9	43.5	88	87	29-132	.9	20	
Methylene Chloride	ug/L	ND	50	50	47.6	44.1	95	88	47-141	8	20	
Naphthalene	ug/L	ND	50	50	36.0	35.6	72	71	40-124	1	20	
Tetrachloroethene	ug/L	ND	50	50	46.3	47.6	93	95	30-124	3	20	
Toluene	ug/L	ND	50	50	42.8	42.5	86	85	42-130	.6	20	
trans-1,2-Dichloroethene	ug/L	30.2	50	50	76.3	76.7	92	93	48-144	.6	20	
Trichloroethene	ug/L	ND	50	50	48.1	47.1	96	94	44-130	2	20	
Vinyl chloride	ug/L	667	50	50	839	847	342	360	45-159	1	20	M0
Xylene (Total)	ug/L	ND	150	150	134	134	89	89	29-131	.2	20	
4-Bromofluorobenzene (S)	%.						100	103	72-125		20	
Dibromofluoromethane (S)	%.						103	102	83-123		20	
Toluene-d8 (S)	%.						97	95	81-114		20	

## QUALITY CONTROL DATA

Project: MI Plaza M01046

Pace Project No.: 5067022

QC Batch:	OHIO/3737	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C TOC
Associated Lab Samples: 5067022001, 5067022002, 5067022003, 5067022004, 5067022005, 5067022006, 5067022007, 5067022008, 5067022009, 5067022010, 5067022011, 5067022012			

METHOD BLANK:	780588	Matrix: Water		
Associated Lab Samples: 5067022001, 5067022002, 5067022003, 5067022004, 5067022005, 5067022006, 5067022007, 5067022008, 5067022009, 5067022010, 5067022011, 5067022012				
Parameter	Units	Blank Result	Reporting Limit	Analyzed
Total Organic Carbon	mg/L	ND	0.30	08/14/12 02:32 N2

LABORATORY CONTROL SAMPLE:	780589	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	5	5.0	99	80-120	N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:	780591	780592									
Parameter	Units	5067022001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD RPD	Max Qual
Total Organic Carbon	mg/L	4.0	4	4	8.3	8.1	106	103	75-125	2 20	N2

SAMPLE DUPLICATE:	780590	5067022001 Result			Dup Result	RPD	Max RPD	Qualifiers
Total Organic Carbon	mg/L	4.0	4.0	4.1	2	20	N2	

## QUALITY CONTROL DATA

Project: MI Plaza M01046

Pace Project No.: 5067022

QC Batch: WETA/8420 Analysis Method: EPA 353.2

QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, Unpres.

Associated Lab Samples: 5067022001, 5067022002, 5067022003, 5067022004, 5067022005, 5067022006, 5067022007, 5067022008,  
5067022009, 5067022010, 5067022011, 5067022012

METHOD BLANK: 776327 Matrix: Water

Associated Lab Samples: 5067022001, 5067022002, 5067022003, 5067022004, 5067022005, 5067022006, 5067022007, 5067022008,  
5067022009, 5067022010, 5067022011, 5067022012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	08/03/12 14:41	

LABORATORY CONTROL SAMPLE: 776328

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	2	2.0	98	90-110	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 776329 776330

Parameter	Units	5067022001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	2	2	1.6	1.6	78	78	90-110	.1	20	M3

MATRIX SPIKE SAMPLE: 776331

Parameter	Units	5067022011 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	2	1.6	79	90-110	M0

## QUALITY CONTROL DATA

Project: MI Plaza M01046

Pace Project No.: 5067022

QC Batch:	WETA/8453	Analysis Method:	ASTM D516-90,02
QC Batch Method:	ASTM D516-90,02	Analysis Description:	ASTM D516-9002 Sulfate Water
Associated Lab Samples: 5067022001, 5067022002, 5067022003, 5067022004, 5067022005, 5067022006, 5067022007, 5067022008			

METHOD BLANK:	780553	Matrix:	Water
Associated Lab Samples: 5067022001, 5067022002, 5067022003, 5067022004, 5067022005, 5067022006, 5067022007, 5067022008			

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	ND	5.0	08/13/12 11:36	N2

LABORATORY CONTROL SAMPLE:	780554						
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers	

Sulfate	mg/L	20	21.0	105	90-110	N2	
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MATRIX SPIKE SAMPLE:	780555						
Parameter	Units	5065572003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers

Sulfate	mg/L	1480	2000	3840	118	90-110	M0,N2	
<hr/>								
Parameter	Units	5067022001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec
Sulfate	mg/L	90.5	200	200	323	318	116	114

## QUALITY CONTROL DATA

Project: MI Plaza M01046

Pace Project No.: 5067022

QC Batch:	WETA/8464	Analysis Method:	ASTM D516-90,02
QC Batch Method:	ASTM D516-90,02	Analysis Description:	ASTM D516-9002 Sulfate Water
Associated Lab Samples:	5067022009, 5067022010, 5067022011, 5067022012		

METHOD BLANK: 781692                                  Matrix: Water

Associated Lab Samples: 5067022009, 5067022010, 5067022011, 5067022012

Parameter	Units	Blank	Reporting	Analyzed	Qualifiers
		Result	Limit		
Sulfate	mg/L	ND	5.0	08/15/12 13:15	N2

LABORATORY CONTROL SAMPLE: 781693

Parameter	Units	Spike	LCS	LCS	% Rec	Qualifiers
		Conc.	Result	% Rec	Limits	
Sulfate	mg/L	20	20.1	100	90-110	N2

MATRIX SPIKE SAMPLE: 781694

Parameter	Units	5067022009	Spike	MS	MS	% Rec	Qualifiers
		Result	Conc.	Result	% Rec	Limits	
Sulfate	mg/L	30.5	50	89.0	117	90-110	M0,N2

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 781695                                  781696

Parameter	Units	5067160001	MS	MSD	MS	% Rec	MSD	% Rec	% Rec	RPD	RPD	Max
		Result	Spike	Spike	Result	Result	Result	Result	Limits	RPD	Qual	RPD
Sulfate	mg/L	36.0	50	50	95.5	93.5	119	115	90-110	2	20	M3,N2

## QUALIFIERS

Project: MI Plaza M01046

Pace Project No.: 5067022

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

M3 Matrix spike recovery was outside laboratory control limits due to matrix interferences.

N2 The lab does not hold TNI accreditation for this parameter.

**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: MI Plaza M01046  
Pace Project No.: 5067022

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
5067022001	MMW-9S	EPA 8260	MSV/44663		
5067022002	MMW-10S	EPA 8260	MSV/44663		
5067022003	MMW-1S	EPA 8260	MSV/44663		
5067022004	MMW-8S	EPA 8260	MSV/44663		
5067022005	MMW-P-05	EPA 8260	MSV/44663		
5067022006	MMW-P-10S	EPA 8260	MSV/44663		
5067022007	MMW-P-10D	EPA 8260	MSV/44663		
5067022008	MMW-P-08	EPA 8260	MSV/44663		
5067022009	MMW-P-07	EPA 8260	MSV/44663		
5067022010	MMW-P-01	EPA 8260	MSV/44663		
5067022011	MMW-P-06	EPA 8260	MSV/44663		
5067022012	Dup-2	EPA 8260	MSV/44663		
5067022013	Trip Blank	EPA 8260	MSV/44663		
5067022001	MMW-9S	SM 5310C	OHIO/3737		
5067022002	MMW-10S	SM 5310C	OHIO/3737		
5067022003	MMW-1S	SM 5310C	OHIO/3737		
5067022004	MMW-8S	SM 5310C	OHIO/3737		
5067022005	MMW-P-05	SM 5310C	OHIO/3737		
5067022006	MMW-P-10S	SM 5310C	OHIO/3737		
5067022007	MMW-P-10D	SM 5310C	OHIO/3737		
5067022008	MMW-P-08	SM 5310C	OHIO/3737		
5067022009	MMW-P-07	SM 5310C	OHIO/3737		
5067022010	MMW-P-01	SM 5310C	OHIO/3737		
5067022011	MMW-P-06	SM 5310C	OHIO/3737		
5067022012	Dup-2	SM 5310C	OHIO/3737		
5067022001	MMW-9S	EPA 353.2	WETA/8420		
5067022002	MMW-10S	EPA 353.2	WETA/8420		
5067022003	MMW-1S	EPA 353.2	WETA/8420		
5067022004	MMW-8S	EPA 353.2	WETA/8420		
5067022005	MMW-P-05	EPA 353.2	WETA/8420		
5067022006	MMW-P-10S	EPA 353.2	WETA/8420		
5067022007	MMW-P-10D	EPA 353.2	WETA/8420		
5067022008	MMW-P-08	EPA 353.2	WETA/8420		
5067022009	MMW-P-07	EPA 353.2	WETA/8420		
5067022010	MMW-P-01	EPA 353.2	WETA/8420		
5067022011	MMW-P-06	EPA 353.2	WETA/8420		
5067022012	Dup-2	EPA 353.2	WETA/8420		
5067022001	MMW-9S	ASTM D516-90,02	WETA/8453		
5067022002	MMW-10S	ASTM D516-90,02	WETA/8453		
5067022003	MMW-1S	ASTM D516-90,02	WETA/8453		
5067022004	MMW-8S	ASTM D516-90,02	WETA/8453		
5067022005	MMW-P-05	ASTM D516-90,02	WETA/8453		
5067022006	MMW-P-10S	ASTM D516-90,02	WETA/8453		
5067022007	MMW-P-10D	ASTM D516-90,02	WETA/8453		
5067022008	MMW-P-08	ASTM D516-90,02	WETA/8453		
5067022009	MMW-P-07	ASTM D516-90,02	WETA/8464		
5067022010	MMW-P-01	ASTM D516-90,02	WETA/8464		

Date: 08/16/2012 04:57 PM

**REPORT OF LABORATORY ANALYSIS**

Page 26 of 27

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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MI Plaza M01046  
 Pace Project No.: 5067022

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
5067022011	MMW-P-06	ASTM D516-90,02	WETA/8464		
5067022012	Dup-2	ASTM D516-90,02	WETA/8464		

Page Analytical

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CHAIN-OF-CUSTODY / Analytical Request Document

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Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:																																																																																					
Company: <b>Mandell Associates</b> Address: 110 S. Orange, Tulsa, IN Email To: Phone: Requested Due Date (AT): <i>SAT</i>		Report To: <b>Mallard</b> Copy To: <b>Mallard</b> Purchase Order No.: Project Name: <b>Mallard Plaza</b> Project Number: <b>Mallard</b>		Attention: <b>Mick Tellez</b> Company Name: <b>Mallard</b> Address: Purchase Quote Reference: Pace Project Manager: Pace Profile #: Residual Chlorine (Y/N)																																																																																					
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<p>Temp In °C      Received on _____</p> <p>Sealed Container (Y/N)      Customer Code _____</p> <p>Sealed Container (Y/N)      Samples intact (Y/N)</p>																																																																																									
<p>E-AQ-00000007-15-May-2007</p>																																																																																									

**Sample Condition Upon Receipt**



Pace Analytical™

Client Name: Mundell & Assoc Project # 5067022

Courier:  FedEx  UPS  USPS  Client  Commercial  Pace Other \_\_\_\_\_

Tracking #: \_\_\_\_\_

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other foam Trays

Thermometer Used 1 2 3 4 6 A C D E

Type of Ice: Wet Blue None

Samples on ice, cooling process has begun

Cooler Temperature

2.1 °C

Ice Visible in Sample Containers:

yes  no

Date and Initials of person examining contents: 8/3/12 ZT

Temp should be above freezing to 6°C

Comments: \_\_\_\_\_

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Short Hold Time Analysis (<72hr):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	6.
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sample Labels match COC: -Includes date/time/ID/Analysis	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8. <u>Water</u>
All containers needing acid/base pres. have been checked? exceptions: VOA, coliform, TOC, O&G	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	9. (Circle) HNO3 H2SO4 NaOH HCl
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	10. <u>Except 1 Voa Vials Dup-2.</u>
Trip Blank Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Project Manager Review		
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	14.

**Client Notification/ Resolution:**

Field Data Required?

Y / N

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Project Manager Review:

J. Dwyer

Date: 8/3/12

CLIENT: Mundell & Associates

Sample Container Count

COC PAGE 1 of 2  
COC ID# 1551972

Project # SDU7022

Sample Line

Item	DG9H	AG1U	WG FU	AG0U	R 4/6	BP2N	BP2U	BP2S	BP3N	BP3U	BP3S	AG3S	AG1H	Comments
1	9								3		3			
2	3								1		1			
3	3								1		1			
4	3								1		1			
5	3								1		1			
6	3								1		1			
7	3								1		1			
8	3								1		1			
9	3								1		1			
10	3								1		1			
11	3								1		1			
12	3								1		1			

Container Codes

DG9H	40mL HCL amber vial	AG0U	100mL unpreserved amber glass	BP1N	1 liter HNO3 plastic	DG9P	40mL TSP amber vial
AG1U	1liter unpreserved amber glass	AG1H	1 liter HCL amber glass	BP1S	1 liter H2SO4 plastic	DG9S	40mL H2SO4 amber vial
WG FU	4oz clear soil jar	AG1S	1 liter H2SO4 amber glass	BP1U	1 liter unpreserved plastic	DG9T	40mL Na Thio amber vial
R terra core kit		AG1T	1 liter Na Thiosulfate amber gl	BP1Z	1 liter NaOH, Zn, Ac	DG9U	40mL unpreserved amber vial
BP2N	500mL HNO3 plastic	AG2N	500mL HNO3 amber glass	BP2A	500mL NaOH, Asc Acid plastic	I Wipe/Swab	
BP2U	500mL unpreserved plastic	AG2S	500mL H2SO4 amber glass	BP2O	500mL NaOH plastic	JGFU	4oz unpreserved amber wide
BP2S	500mL H2SO4 plastic	AG2U	500mL unpreserved amber gla	BP2Z	500mL NaOH, Zn Ac	U Summa Can	
BP3N	250mL HNO3 plastic	AG3U	250mL unpreserved amber gla	AF	Air Filter	VG9H	40mL HCL clear vial
BP3U	250mL unpreserved plastic	BG1H	1 liter HCL clear glass	BP3C	250mL NaOH plastic	VGGT	40mL Na Thio. clear vial
BP3S	250mL H2SO4 plastic	BG1S	1 liter H2SO4 clear glass	BP3Z	250mL NaOH, Zn Ac plastic	VG9U	40mL unpreserved clear vial
AG3S	250mL H2SO4 glass amber	BG1T	1 liter Na Thiosulfate clear gla	C	Air Cassette	VSG	Headspace septa vial & HCl
AG1S	1 liter H2SO4 amber glass	BG1U	1 liter unpreserved glass	DG9B	40mL Na Bisulfate amber vial	WGFX	4oz wide jar w/hexane wipe
BP1U	1 liter unpreserved plastic	BG1A	1 liter NaOH, Asc Acid plastic	DG9M	40mL MeOH clear vial	ZPLC	Ziploc Bag

CLIENT: Mundell & Associates

**Sample Container Count**

COC PAGE 2 of 2

COC ID# \_\_\_\_\_

Project # S067022

**Sample Line**

**Item** DG9H AG1U WGFU AG0U R 4 / 6 BP2N BP2U BP2S BP3N BP3U BP3S AG3S AG1H

1	3											
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												

**Container Codes**

DG9H	40mL HCl amber vial	AG0U	100mL unpreserved amber glass	BP1N	1 liter HNO3 plastic	DG9P	40mL TSP amber vial
AG1U	1liter unpreserved amber glass	AG1H	1 liter HCl amber glass	BP1S	1 liter H2SO4 plastic	DG9S	40mL H2SO4 amber vial
WGFU	4oz clear soil jar	AG1S	1 liter H2SO4 amber glass	BP1U	1 liter unpreserved plastic	DG9T	40mL Na Thio amber vial
R	terra core kit	AG1T	1 liter Na Thiosulfate amber gl	BP1Z	1 liter NaOH, Zn, Ac	DG9U	40mL unpreserved amber vial
BP2N	500mL HNO3 plastic	AG2N	500mL HNO3 amber glass	BP2A	500mL NaOH, Asc Acid plastic	I	Wipe/Swab
BP2U	500mL unpreserved plastic	AG2S	500mL H2SO4 amber glass	BP2O	500mL NaOH plastic	JG FU	4oz unpreserved amber wide
BP2S	500mL H2SO4 plastic	AG2U	500mL unpreserved amber gla	BP2Z	500mL NaOH, Zn Ac	U	Summa Can
BP3N	250mL HNO3 plastic	AG3U	250mL unpreserved amber gla	AF	Air Filter	VG9H	40mL HCL clear vial
BP3U	250mL unpreserved plastic	BG1H	1 liter HCl clear glass	BP3C	250mL NaOH plastic	VG9T	40mL Na Thio. clear vial
BP3S	250mL H2SO4 plastic	BG1S	1 liter H2SO4 clear glass	BP3Z	250mL NaOH, Zn Ac plastic	VG9U	40mL unpreserved clear vial
AG3S	250mL H2SO4 glass amber	BG1T	1 liter Na Thiosulfate clear gla	C	Air Cassette	VSG	Headspace septa vial & HCL
AG1S	1 liter H2SO4 amber glass	BG1U	1 liter unpreserved glass	DG9B	40mL Na Bisulfate amber vial	WGFX	4oz wide jar whexane wipe
BP1U	1 liter unpreserved plastic	BP1A	1 liter NaOH, Asc Acid plastic	DG9M	40mL MeOH clear vial	ZPLC	Ziploc Bag

August 20, 2012

Mr. Mark Breting  
Mundell & Associates  
110 S. Downey Ave.  
Indianapolis, IN 46228

RE: Project: MI Plaza M01046  
Pace Project No.: 5067229

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on August 08, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Tina Sayer

tina.sayer@pacelabs.com  
Project Manager

Enclosures



#### REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: MI Plaza M01046  
Pace Project No.: 5067229

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### Indiana Certification IDs

7726 Moller Road, Indianapolis, IN 46268  
Illinois Certification #: 200074  
Indiana Certification #: C-49-06  
Kansas Certification #: E-10247  
Kentucky Certification #: 0042

Louisiana/NELAC Certification #: 04076  
Ohio VAP Certification #: CL0065  
Pennsylvania Certification #: 68-04991  
West Virginia Certification #: 330

### Ohio Certification IDs

1233 Dublin Road, Columbus, OH 43215  
Indiana Drinking Water Certification #: C-OH-11  
NVLAP Certification #: 90132

Ohio Microbiology Certification #: 943  
Ohio Drinking Water Certification #: 1030

## REPORT OF LABORATORY ANALYSIS

Page 2 of 29

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## SAMPLE SUMMARY

Project: MI Plaza M01046

Pace Project No.: 5067229

Lab ID	Sample ID	Matrix	Date Collected	Date Received
5067229001	<b>MW-170S</b>	Water	08/03/12 09:19	08/08/12 10:41
5067229002	<b>MW-167D</b>	Water	08/03/12 10:35	08/08/12 10:41
5067229003	<b>MW-168D</b>	Water	08/03/12 11:52	08/08/12 10:41
5067229004	<b>MW-170D</b>	Water	08/03/12 13:05	08/08/12 10:41
5067229005	<b>MMW-15D</b>	Water	08/06/12 10:10	08/08/12 10:41
5067229006	<b>MMW-15S</b>	Water	08/06/12 11:15	08/08/12 10:41
5067229007	<b>MMW-C-17D</b>	Water	08/06/12 12:41	08/08/12 10:41
5067229008	<b>MMW-C-16D</b>	Water	08/06/12 13:40	08/08/12 10:41
5067229009	<b>MMW-C-16S</b>	Water	08/06/12 14:26	08/08/12 10:41
5067229010	<b>MMW-P-12S</b>	Water	08/07/12 09:33	08/08/12 10:41
5067229011	<b>MMW-P-12D</b>	Water	08/07/12 10:38	08/08/12 10:41
5067229012	<b>MMW-P-11S</b>	Water	08/07/12 12:05	08/08/12 10:41
5067229013	<b>MMW-P-11DR</b>	Water	08/07/12 12:50	08/08/12 10:41
5067229014	<b>MMW-P-14S</b>	Water	08/07/12 13:54	08/08/12 10:41
5067229015	<b>MMW-P-14D</b>	Water	08/07/12 14:42	08/08/12 10:41
5067229016	<b>MMW-P-13S</b>	Water	08/07/12 15:42	08/08/12 10:41
5067229017	<b>MMW-P-13D</b>	Water	08/07/12 16:28	08/08/12 10:41
5067229018	Trip Blank	Water	08/07/12 08:00	08/08/12 10:41

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## SAMPLE ANALYTE COUNT

Project: MI Plaza M01046  
Pace Project No.: 5067229

Lab ID	Sample ID	Method	Analysts	Analytes Reported
5067229001	MW-170S	EPA 8260	JLZ	18
5067229002	MW-167D	EPA 8260	JLZ	18
5067229003	MW-168D	EPA 8260	JLZ	18
5067229004	MW-170D	EPA 8260	JLZ	18
5067229005	MMW-15D	EPA 8260	JLZ	18
5067229006	MMW-15S	EPA 8260	JLZ	18
5067229007	MMW-C-17D	EPA 8260	JLZ	18
5067229008	MMW-C-16D	EPA 8260	JLZ	18
5067229009	MMW-C-16S	EPA 8260	JLZ	18
5067229010	MMW-P-12S	EPA 8260	JLZ	18
		SM 5310C	GR1	1
		EPA 353.2	ILP	1
		ASTM D516-90,02	TPD	1
5067229011	MMW-P-12D	EPA 8260	JLZ	18
		SM 5310C	GR1	1
		EPA 353.2	ILP	1
		ASTM D516-90,02	TPD	1
5067229012	MMW-P-11S	EPA 8260	JLZ	18
		SM 5310C	GR1	1
		EPA 353.2	ILP	1
		ASTM D516-90,02	TPD	1
5067229013	MMW-P-11DR	EPA 8260	JLZ	18
		SM 5310C	GR1	1
		EPA 353.2	ILP	1
		ASTM D516-90,02	TPD	1
5067229014	MMW-P-14S	EPA 8260	JLZ	18
5067229015	MMW-P-14D	EPA 8260	JLZ	18
5067229016	MMW-P-13S	EPA 8260	JLZ	18
5067229017	MMW-P-13D	EPA 8260	JLZ	18
5067229018	Trip Blank	EPA 8260	JLZ	18

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5067229

Sample: MW-170S	Lab ID: 5067229001	Collected: 08/03/12 09:19	Received: 08/08/12 10:41	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		08/09/12 17:06	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		08/09/12 17:06	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/09/12 17:06	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/09/12 17:06	75-35-4	
cis-1,2-Dichloroethene	7.9	ug/L	5.0	1		08/09/12 17:06	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		08/09/12 17:06	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		08/09/12 17:06	100-41-4	
Methylene Chloride	ND	ug/L	5.0	1		08/09/12 17:06	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/09/12 17:06	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		08/09/12 17:06	127-18-4	
Toluene	ND	ug/L	5.0	1		08/09/12 17:06	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/09/12 17:06	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/09/12 17:06	79-01-6	
Vinyl chloride	ND	ug/L	2.0	1		08/09/12 17:06	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/09/12 17:06	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	104 %.		83-123	1		08/09/12 17:06	1868-53-7	
4-Bromofluorobenzene (S)	97 %.		72-125	1		08/09/12 17:06	460-00-4	
Toluene-d8 (S)	99 %.		81-114	1		08/09/12 17:06	2037-26-5	

## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5067229

Sample: MW-167D	Lab ID: 5067229002	Collected: 08/03/12 10:35	Received: 08/08/12 10:41	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		08/09/12 22:58	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		08/09/12 22:58	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/09/12 22:58	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/09/12 22:58	75-35-4	
cis-1,2-Dichloroethene	<b>422</b>	ug/L	50.0	10		08/10/12 08:34	156-59-2	
trans-1,2-Dichloroethene	<b>26.4</b>	ug/L	5.0	1		08/09/12 22:58	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		08/09/12 22:58	100-41-4	
Methylene Chloride	ND	ug/L	5.0	1		08/09/12 22:58	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/09/12 22:58	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		08/09/12 22:58	127-18-4	
Toluene	ND	ug/L	5.0	1		08/09/12 22:58	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/09/12 22:58	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/09/12 22:58	79-01-6	
Vinyl chloride	<b>8.4</b>	ug/L	2.0	1		08/09/12 22:58	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/09/12 22:58	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	108 %.		83-123	1		08/09/12 22:58	1868-53-7	
4-Bromofluorobenzene (S)	99 %.		72-125	1		08/09/12 22:58	460-00-4	
Toluene-d8 (S)	94 %.		81-114	1		08/09/12 22:58	2037-26-5	

## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5067229

Sample: MW-168D	Lab ID: 5067229003	Collected: 08/03/12 11:52	Received: 08/08/12 10:41	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		08/09/12 17:38	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		08/09/12 17:38	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/09/12 17:38	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/09/12 17:38	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		08/09/12 17:38	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		08/09/12 17:38	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		08/09/12 17:38	100-41-4	
Methylene Chloride	ND	ug/L	5.0	1		08/09/12 17:38	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/09/12 17:38	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		08/09/12 17:38	127-18-4	
Toluene	ND	ug/L	5.0	1		08/09/12 17:38	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/09/12 17:38	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/09/12 17:38	79-01-6	
Vinyl chloride	104	ug/L	2.0	1		08/09/12 17:38	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/09/12 17:38	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	103 %.		83-123	1		08/09/12 17:38	1868-53-7	
4-Bromofluorobenzene (S)	98 %.		72-125	1		08/09/12 17:38	460-00-4	
Toluene-d8 (S)	94 %.		81-114	1		08/09/12 17:38	2037-26-5	

## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5067229

Sample: MW-170D	Lab ID: 5067229004	Collected: 08/03/12 13:05	Received: 08/08/12 10:41	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		08/09/12 18:10	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		08/09/12 18:10	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/09/12 18:10	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/09/12 18:10	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		08/09/12 18:10	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		08/09/12 18:10	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		08/09/12 18:10	100-41-4	
Methylene Chloride	ND	ug/L	5.0	1		08/09/12 18:10	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/09/12 18:10	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		08/09/12 18:10	127-18-4	
Toluene	ND	ug/L	5.0	1		08/09/12 18:10	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/09/12 18:10	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/09/12 18:10	79-01-6	
Vinyl chloride	77.2	ug/L	2.0	1		08/09/12 18:10	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/09/12 18:10	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	105 %.		83-123	1		08/09/12 18:10	1868-53-7	
4-Bromofluorobenzene (S)	96 %.		72-125	1		08/09/12 18:10	460-00-4	
Toluene-d8 (S)	94 %.		81-114	1		08/09/12 18:10	2037-26-5	

## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5067229

Sample: MMW-15D	Lab ID: 5067229005	Collected: 08/06/12 10:10	Received: 08/08/12 10:41	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		08/09/12 18:42	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		08/09/12 18:42	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/09/12 18:42	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/09/12 18:42	75-35-4	
cis-1,2-Dichloroethene	<b>11.6</b>	ug/L	5.0	1		08/09/12 18:42	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		08/09/12 18:42	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		08/09/12 18:42	100-41-4	
Methylene Chloride	ND	ug/L	5.0	1		08/09/12 18:42	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/09/12 18:42	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		08/09/12 18:42	127-18-4	
Toluene	ND	ug/L	5.0	1		08/09/12 18:42	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/09/12 18:42	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/09/12 18:42	79-01-6	
Vinyl chloride	<b>3.1</b>	ug/L	2.0	1		08/09/12 18:42	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/09/12 18:42	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	102 %.		83-123	1		08/09/12 18:42	1868-53-7	
4-Bromofluorobenzene (S)	101 %.		72-125	1		08/09/12 18:42	460-00-4	
Toluene-d8 (S)	94 %.		81-114	1		08/09/12 18:42	2037-26-5	

## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5067229

Sample: MMW-15S	Lab ID: 5067229006	Collected: 08/06/12 11:15	Received: 08/08/12 10:41	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		08/09/12 19:14	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		08/09/12 19:14	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/09/12 19:14	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/09/12 19:14	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		08/09/12 19:14	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		08/09/12 19:14	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		08/09/12 19:14	100-41-4	
Methylene Chloride	ND	ug/L	5.0	1		08/09/12 19:14	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/09/12 19:14	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		08/09/12 19:14	127-18-4	
Toluene	ND	ug/L	5.0	1		08/09/12 19:14	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/09/12 19:14	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/09/12 19:14	79-01-6	
Vinyl chloride	ND	ug/L	2.0	1		08/09/12 19:14	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/09/12 19:14	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	103 %.		83-123	1		08/09/12 19:14	1868-53-7	
4-Bromofluorobenzene (S)	96 %.		72-125	1		08/09/12 19:14	460-00-4	
Toluene-d8 (S)	93 %.		81-114	1		08/09/12 19:14	2037-26-5	

## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5067229

Sample: MMW-C-17D	Lab ID: 5067229007	Collected: 08/06/12 12:41	Received: 08/08/12 10:41	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		08/09/12 15:30	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		08/09/12 15:30	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/09/12 15:30	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/09/12 15:30	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		08/09/12 15:30	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		08/09/12 15:30	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		08/09/12 15:30	100-41-4	
Methylene Chloride	ND	ug/L	5.0	1		08/09/12 15:30	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/09/12 15:30	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		08/09/12 15:30	127-18-4	
Toluene	ND	ug/L	5.0	1		08/09/12 15:30	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/09/12 15:30	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/09/12 15:30	79-01-6	
Vinyl chloride	2.7	ug/L	2.0	1		08/09/12 15:30	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/09/12 15:30	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	102 %.		83-123	1		08/09/12 15:30	1868-53-7	
4-Bromofluorobenzene (S)	98 %.		72-125	1		08/09/12 15:30	460-00-4	
Toluene-d8 (S)	90 %.		81-114	1		08/09/12 15:30	2037-26-5	

## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5067229

Sample: MMW-C-16D	Lab ID: 5067229008	Collected: 08/06/12 13:40	Received: 08/08/12 10:41	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		08/09/12 16:02	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		08/09/12 16:02	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/09/12 16:02	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/09/12 16:02	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		08/09/12 16:02	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		08/09/12 16:02	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		08/09/12 16:02	100-41-4	
Methylene Chloride	ND	ug/L	5.0	1		08/09/12 16:02	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/09/12 16:02	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		08/09/12 16:02	127-18-4	
Toluene	ND	ug/L	5.0	1		08/09/12 16:02	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/09/12 16:02	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/09/12 16:02	79-01-6	
Vinyl chloride	224	ug/L	2.0	1		08/09/12 16:02	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/09/12 16:02	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	98 %.		83-123	1		08/09/12 16:02	1868-53-7	
4-Bromofluorobenzene (S)	96 %.		72-125	1		08/09/12 16:02	460-00-4	
Toluene-d8 (S)	92 %.		81-114	1		08/09/12 16:02	2037-26-5	

## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5067229

Sample: MMW-C-16S	Lab ID: 5067229009	Collected: 08/06/12 14:26	Received: 08/08/12 10:41	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		08/09/12 16:34	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		08/09/12 16:34	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/09/12 16:34	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/09/12 16:34	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		08/09/12 16:34	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		08/09/12 16:34	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		08/09/12 16:34	100-41-4	
Methylene Chloride	ND	ug/L	5.0	1		08/09/12 16:34	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/09/12 16:34	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		08/09/12 16:34	127-18-4	
Toluene	ND	ug/L	5.0	1		08/09/12 16:34	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/09/12 16:34	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/09/12 16:34	79-01-6	
Vinyl chloride	ND	ug/L	2.0	1		08/09/12 16:34	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/09/12 16:34	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	103 %.		83-123	1		08/09/12 16:34	1868-53-7	
4-Bromofluorobenzene (S)	102 %.		72-125	1		08/09/12 16:34	460-00-4	
Toluene-d8 (S)	101 %.		81-114	1		08/09/12 16:34	2037-26-5	

## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5067229

Sample: MMW-P-12S	Lab ID: 5067229010	Collected: 08/07/12 09:33	Received: 08/08/12 10:41	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		08/09/12 19:46	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		08/09/12 19:46	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/09/12 19:46	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/09/12 19:46	75-35-4	
cis-1,2-Dichloroethene	<b>679</b>	ug/L	50.0	10		08/10/12 09:38	156-59-2	
trans-1,2-Dichloroethene	<b>20.3</b>	ug/L	5.0	1		08/09/12 19:46	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		08/09/12 19:46	100-41-4	
Methylene Chloride	ND	ug/L	5.0	1		08/09/12 19:46	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/09/12 19:46	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		08/09/12 19:46	127-18-4	
Toluene	ND	ug/L	5.0	1		08/09/12 19:46	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/09/12 19:46	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/09/12 19:46	79-01-6	
Vinyl chloride	<b>51.8</b>	ug/L	2.0	1		08/09/12 19:46	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/09/12 19:46	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	104 %.		83-123	1		08/09/12 19:46	1868-53-7	
4-Bromofluorobenzene (S)	98 %.		72-125	1		08/09/12 19:46	460-00-4	
Toluene-d8 (S)	95 %.		81-114	1		08/09/12 19:46	2037-26-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	<b>1.9</b>	mg/L	0.30	1		08/14/12 12:11	7440-44-0	N2
<b>353.2 Nitrogen, NO<sub>2</sub>/NO<sub>3</sub> unpres</b>	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	ND	mg/L	0.10	1		08/08/12 14:31		
<b>ASTM D516-9002 Sulfate Water</b>	Analytical Method: ASTM D516-90,02							
Sulfate	<b>135</b>	mg/L	50.0	1		08/15/12 13:15	14808-79-8	N2

## ANALYTICAL RESULTS

Project: MI Plaza M01046  
Pace Project No.: 5067229

Sample: MMW-P-12D	Lab ID: 5067229011	Collected: 08/07/12 10:38	Received: 08/08/12 10:41	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		08/09/12 23:30	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		08/09/12 23:30	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/09/12 23:30	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/09/12 23:30	75-35-4	
cis-1,2-Dichloroethene	<b>750</b>	ug/L	50.0	10		08/10/12 09:06	156-59-2	
trans-1,2-Dichloroethene	<b>18.8</b>	ug/L	5.0	1		08/09/12 23:30	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		08/09/12 23:30	100-41-4	
Methylene Chloride	ND	ug/L	5.0	1		08/09/12 23:30	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/09/12 23:30	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		08/09/12 23:30	127-18-4	
Toluene	ND	ug/L	5.0	1		08/09/12 23:30	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/09/12 23:30	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/09/12 23:30	79-01-6	
Vinyl chloride	<b>67.6</b>	ug/L	2.0	1		08/09/12 23:30	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/09/12 23:30	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	106 %.		83-123	1		08/09/12 23:30	1868-53-7	
4-Bromofluorobenzene (S)	100 %.		72-125	1		08/09/12 23:30	460-00-4	
Toluene-d8 (S)	97 %.		81-114	1		08/09/12 23:30	2037-26-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	<b>2.0</b>	mg/L	0.30	1		08/14/12 12:52	7440-44-0	N2
<b>353.2 Nitrogen, NO<sub>2</sub>/NO<sub>3</sub> unpres</b>	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	ND	mg/L	0.10	1		08/08/12 14:35		
<b>ASTM D516-9002 Sulfate Water</b>	Analytical Method: ASTM D516-90,02							
Sulfate	<b>262</b>	mg/L	50.0	1		08/15/12 13:15	14808-79-8	N2

## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5067229

Sample: MMW-P-11S	Lab ID: 5067229012	Collected: 08/07/12 12:05	Received: 08/08/12 10:41	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		08/10/12 00:02	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		08/10/12 00:02	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/10/12 00:02	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/10/12 00:02	75-35-4	
cis-1,2-Dichloroethene	14.7	ug/L	5.0	1		08/10/12 00:02	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		08/10/12 00:02	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		08/10/12 00:02	100-41-4	
Methylene Chloride	ND	ug/L	5.0	1		08/10/12 00:02	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/10/12 00:02	91-20-3	
Tetrachloroethene	88.1	ug/L	5.0	1		08/10/12 00:02	127-18-4	
Toluene	ND	ug/L	5.0	1		08/10/12 00:02	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/10/12 00:02	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/10/12 00:02	79-01-6	
Vinyl chloride	11.4	ug/L	2.0	1		08/10/12 00:02	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/10/12 00:02	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	102 %.		83-123	1		08/10/12 00:02	1868-53-7	
4-Bromofluorobenzene (S)	99 %.		72-125	1		08/10/12 00:02	460-00-4	
Toluene-d8 (S)	95 %.		81-114	1		08/10/12 00:02	2037-26-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	1.7	mg/L	0.30	1		08/14/12 13:23	7440-44-0	N2
<b>353.2 Nitrogen, NO<sub>2</sub>/NO<sub>3</sub> unpres</b>	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	ND	mg/L	0.10	1		08/08/12 14:36		
<b>ASTM D516-9002 Sulfate Water</b>	Analytical Method: ASTM D516-90,02							
Sulfate	189	mg/L	50.0	1		08/15/12 13:15	14808-79-8	N2

## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5067229

Sample: MMW-P-11DR	Lab ID: 5067229013	Collected: 08/07/12 12:50	Received: 08/08/12 10:41	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		08/09/12 20:50	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		08/09/12 20:50	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/09/12 20:50	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/09/12 20:50	75-35-4	
cis-1,2-Dichloroethene	11.7	ug/L	5.0	1		08/09/12 20:50	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		08/09/12 20:50	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		08/09/12 20:50	100-41-4	
Methylene Chloride	ND	ug/L	5.0	1		08/09/12 20:50	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/09/12 20:50	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		08/09/12 20:50	127-18-4	
Toluene	ND	ug/L	5.0	1		08/09/12 20:50	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/09/12 20:50	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/09/12 20:50	79-01-6	
Vinyl chloride	102	ug/L	2.0	1		08/09/12 20:50	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/09/12 20:50	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	103 %.		83-123	1		08/09/12 20:50	1868-53-7	
4-Bromofluorobenzene (S)	99 %.		72-125	1		08/09/12 20:50	460-00-4	
Toluene-d8 (S)	97 %.		81-114	1		08/09/12 20:50	2037-26-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	2.1	mg/L	0.30	1		08/14/12 13:55	7440-44-0	N2
<b>353.2 Nitrogen, NO<sub>2</sub>/NO<sub>3</sub> unpres</b>	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	ND	mg/L	0.10	1		08/08/12 14:37		
<b>ASTM D516-9002 Sulfate Water</b>	Analytical Method: ASTM D516-90,02							
Sulfate	219	mg/L	50.0	1		08/15/12 13:15	14808-79-8	N2

## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5067229

Sample: MMW-P-14S	Lab ID: 5067229014	Collected: 08/07/12 13:54	Received: 08/08/12 10:41	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		08/09/12 21:22	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		08/09/12 21:22	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/09/12 21:22	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/09/12 21:22	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		08/09/12 21:22	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		08/09/12 21:22	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		08/09/12 21:22	100-41-4	
Methylene Chloride	ND	ug/L	5.0	1		08/09/12 21:22	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/09/12 21:22	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		08/09/12 21:22	127-18-4	
Toluene	ND	ug/L	5.0	1		08/09/12 21:22	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/09/12 21:22	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/09/12 21:22	79-01-6	
Vinyl chloride	ND	ug/L	2.0	1		08/09/12 21:22	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/09/12 21:22	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	107 %.		83-123	1		08/09/12 21:22	1868-53-7	
4-Bromofluorobenzene (S)	97 %.		72-125	1		08/09/12 21:22	460-00-4	
Toluene-d8 (S)	94 %.		81-114	1		08/09/12 21:22	2037-26-5	

## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5067229

Sample: MMW-P-14D	Lab ID: 5067229015	Collected: 08/07/12 14:42	Received: 08/08/12 10:41	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		08/10/12 00:34	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		08/10/12 00:34	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/10/12 00:34	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/10/12 00:34	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		08/10/12 00:34	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		08/10/12 00:34	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		08/10/12 00:34	100-41-4	
Methylene Chloride	ND	ug/L	5.0	1		08/10/12 00:34	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/10/12 00:34	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		08/10/12 00:34	127-18-4	
Toluene	ND	ug/L	5.0	1		08/10/12 00:34	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/10/12 00:34	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/10/12 00:34	79-01-6	
Vinyl chloride	58.1	ug/L	2.0	1		08/10/12 00:34	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/10/12 00:34	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	103 %.		83-123	1		08/10/12 00:34	1868-53-7	
4-Bromofluorobenzene (S)	98 %.		72-125	1		08/10/12 00:34	460-00-4	
Toluene-d8 (S)	96 %.		81-114	1		08/10/12 00:34	2037-26-5	

## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5067229

Sample: MMW-P-13S	Lab ID: 5067229016	Collected: 08/07/12 15:42	Received: 08/08/12 10:41	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		08/09/12 20:18	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		08/09/12 20:18	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/09/12 20:18	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/09/12 20:18	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		08/09/12 20:18	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		08/09/12 20:18	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		08/09/12 20:18	100-41-4	
Methylene Chloride	ND	ug/L	5.0	1		08/09/12 20:18	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/09/12 20:18	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		08/09/12 20:18	127-18-4	
Toluene	ND	ug/L	5.0	1		08/09/12 20:18	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/09/12 20:18	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/09/12 20:18	79-01-6	
Vinyl chloride	8.9	ug/L	2.0	1		08/09/12 20:18	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/09/12 20:18	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	107 %.		83-123	1		08/09/12 20:18	1868-53-7	
4-Bromofluorobenzene (S)	103 %.		72-125	1		08/09/12 20:18	460-00-4	
Toluene-d8 (S)	96 %.		81-114	1		08/09/12 20:18	2037-26-5	

## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5067229

Sample: MMW-P-13D	Lab ID: 5067229017	Collected: 08/07/12 16:28	Received: 08/08/12 10:41	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		08/09/12 21:54	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		08/09/12 21:54	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/09/12 21:54	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/09/12 21:54	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		08/09/12 21:54	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		08/09/12 21:54	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		08/09/12 21:54	100-41-4	
Methylene Chloride	ND	ug/L	5.0	1		08/09/12 21:54	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/09/12 21:54	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		08/09/12 21:54	127-18-4	
Toluene	ND	ug/L	5.0	1		08/09/12 21:54	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/09/12 21:54	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/09/12 21:54	79-01-6	
Vinyl chloride	167	ug/L	2.0	1		08/09/12 21:54	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/09/12 21:54	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	104 %.		83-123	1		08/09/12 21:54	1868-53-7	
4-Bromofluorobenzene (S)	100 %.		72-125	1		08/09/12 21:54	460-00-4	
Toluene-d8 (S)	96 %.		81-114	1		08/09/12 21:54	2037-26-5	

## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5067229

Sample: Trip Blank	Lab ID: 5067229018	Collected: 08/07/12 08:00	Received: 08/08/12 10:41	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		08/09/12 22:26	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		08/09/12 22:26	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/09/12 22:26	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/09/12 22:26	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		08/09/12 22:26	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		08/09/12 22:26	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		08/09/12 22:26	100-41-4	
Methylene Chloride	ND	ug/L	5.0	1		08/09/12 22:26	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/09/12 22:26	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		08/09/12 22:26	127-18-4	
Toluene	ND	ug/L	5.0	1		08/09/12 22:26	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/09/12 22:26	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/09/12 22:26	79-01-6	
Vinyl chloride	ND	ug/L	2.0	1		08/09/12 22:26	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/09/12 22:26	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	105 %.		83-123	1		08/09/12 22:26	1868-53-7	
4-Bromofluorobenzene (S)	101 %.		72-125	1		08/09/12 22:26	460-00-4	
Toluene-d8 (S)	99 %.		81-114	1		08/09/12 22:26	2037-26-5	

## QUALITY CONTROL DATA

Project: MI Plaza M01046

Pace Project No.: 5067229

QC Batch:	MSV/44768	Analysis Method:	EPA 8260
QC Batch Method:	EPA 8260	Analysis Description:	8260 MSV
Associated Lab Samples:	5067229001, 5067229002, 5067229003, 5067229004, 5067229005, 5067229006, 5067229007, 5067229008, 5067229009, 5067229010, 5067229011, 5067229012, 5067229013, 5067229014, 5067229015, 5067229016, 5067229017, 5067229018		

METHOD BLANK: 779396

Matrix: Water

Associated Lab Samples: 5067229001, 5067229002, 5067229003, 5067229004, 5067229005, 5067229006, 5067229007, 5067229008, 5067229009, 5067229010, 5067229011, 5067229012, 5067229013, 5067229014, 5067229015, 5067229016, 5067229017, 5067229018

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	5.0	08/09/12 14:58	
1,1-Dichloroethene	ug/L	ND	5.0	08/09/12 14:58	
Benzene	ug/L	ND	5.0	08/09/12 14:58	
Carbon tetrachloride	ug/L	ND	5.0	08/09/12 14:58	
Chloroform	ug/L	ND	5.0	08/09/12 14:58	
cis-1,2-Dichloroethene	ug/L	ND	5.0	08/09/12 14:58	
Ethylbenzene	ug/L	ND	5.0	08/09/12 14:58	
Methylene Chloride	ug/L	ND	5.0	08/09/12 14:58	
Naphthalene	ug/L	ND	5.0	08/09/12 14:58	
Tetrachloroethene	ug/L	ND	5.0	08/09/12 14:58	
Toluene	ug/L	ND	5.0	08/09/12 14:58	
trans-1,2-Dichloroethene	ug/L	ND	5.0	08/09/12 14:58	
Trichloroethene	ug/L	ND	5.0	08/09/12 14:58	
Vinyl chloride	ug/L	ND	2.0	08/09/12 14:58	
Xylene (Total)	ug/L	ND	10.0	08/09/12 14:58	
4-Bromofluorobenzene (S)	%.	98	72-125	08/09/12 14:58	
Dibromofluoromethane (S)	%.	104	83-123	08/09/12 14:58	
Toluene-d8 (S)	%.	95	81-114	08/09/12 14:58	

LABORATORY CONTROL SAMPLE: 779397

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	61.9	124	69-126	
1,1-Dichloroethene	ug/L	50	56.0	112	75-145	
Benzene	ug/L	50	50.0	100	76-123	
Carbon tetrachloride	ug/L	50	57.4	115	65-125	
Chloroform	ug/L	50	57.1	114	73-122	
cis-1,2-Dichloroethene	ug/L	50	53.7	107	79-129	
Ethylbenzene	ug/L	50	49.6	99	75-120	
Methylene Chloride	ug/L	50	59.5	119	61-138	
Naphthalene	ug/L	50	42.8	86	62-130	
Tetrachloroethene	ug/L	50	51.8	104	57-125	
Toluene	ug/L	50	48.0	96	72-124	
trans-1,2-Dichloroethene	ug/L	50	54.5	109	71-145	
Trichloroethene	ug/L	50	55.0	110	77-122	
Vinyl chloride	ug/L	50	48.2	96	61-146	
Xylene (Total)	ug/L	150	153	102	72-126	
4-Bromofluorobenzene (S)	%.			101	72-125	

Date: 08/20/2012 01:03 PM

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: MI Plaza M01046

Pace Project No.: 5067229

**LABORATORY CONTROL SAMPLE:** 779397

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dibromofluoromethane (S)	%. %			105 97	83-123 81-114	
Toluene-d8 (S)						

**MATRIX SPIKE SAMPLE:** 779398

Parameter	Units	5067229015 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L		ND	50	63.2	126	37-136
1,1-Dichloroethene	ug/L		ND	50	58.5	117	54-152
Benzene	ug/L		ND	50	51.8	104	52-134
Carbon tetrachloride	ug/L		ND	50	58.0	116	26-136
Chloroform	ug/L		ND	50	58.0	116	50-134
cis-1,2-Dichloroethene	ug/L		ND	50	55.4	111	48-145
Ethylbenzene	ug/L		ND	50	48.3	97	29-132
Methylene Chloride	ug/L		ND	50	57.3	115	47-141
Naphthalene	ug/L		ND	50	35.6	71	40-124
Tetrachloroethene	ug/L		ND	50	50.6	101	30-124
Toluene	ug/L		ND	50	46.6	93	42-130
trans-1,2-Dichloroethene	ug/L		ND	50	55.1	110	48-144
Trichloroethene	ug/L		ND	50	56.3	113	44-130
Vinyl chloride	ug/L	58.1	50	109	102	45-159	
Xylene (Total)	ug/L		ND	150	146	97	29-131
4-Bromofluorobenzene (S)	%. %					103	72-125
Dibromofluoromethane (S)	%. %					109	83-123
Toluene-d8 (S)						96	81-114

## QUALITY CONTROL DATA

Project: MI Plaza M01046

Pace Project No.: 5067229

QC Batch:	OHIO/3737	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C TOC
Associated Lab Samples:	5067229010, 5067229011, 5067229012, 5067229013		

METHOD BLANK: 780588                                  Matrix: Water

Associated Lab Samples: 5067229010, 5067229011, 5067229012, 5067229013

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	0.30	08/14/12 02:32	N2

LABORATORY CONTROL SAMPLE: 780589

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	5	5.0	99	80-120	N2

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 780591                                  780592

Parameter	Units	5067022001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Max RPD	Qual
Total Organic Carbon	mg/L	4.0	4	4	8.3	8.1	106	103	75-125	2	20	N2

SAMPLE DUPLICATE: 780590

Parameter	Units	5067022001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Organic Carbon	mg/L	4.0	4.1	2	20	N2

## QUALITY CONTROL DATA

Project: MI Plaza M01046

Pace Project No.: 5067229

QC Batch:	WETA/8439	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, Unpres.
Associated Lab Samples:	5067229010, 5067229011, 5067229012, 5067229013		

METHOD BLANK: 778510   Matrix: Water

Associated Lab Samples: 5067229010, 5067229011, 5067229012, 5067229013

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	08/08/12 14:29	

LABORATORY CONTROL SAMPLE: 778511

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	2	1.9	95	90-110	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 778512   778513

Parameter	Units	5067229010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Max RPD	Max Qual
Nitrogen, Nitrate	mg/L	ND	2	2	1.8	1.8	87	87	90-110	.5	20	M3

## QUALITY CONTROL DATA

Project: MI Plaza M01046

Pace Project No.: 5067229

QC Batch:	WETA/8464	Analysis Method:	ASTM D516-90,02
QC Batch Method:	ASTM D516-90,02	Analysis Description:	ASTM D516-9002 Sulfate Water
Associated Lab Samples:	5067229010, 5067229011, 5067229012, 5067229013		

METHOD BLANK: 781692   Matrix: Water

Associated Lab Samples: 5067229010, 5067229011, 5067229012, 5067229013

Parameter	Units	Blank	Reporting	Analyzed	Qualifiers
		Result	Limit		
Sulfate	mg/L	ND	5.0	08/15/12 13:15	N2

LABORATORY CONTROL SAMPLE: 781693

Parameter	Units	Spike	LCS	LCS	% Rec	Qualifiers
		Conc.	Result	% Rec	Limits	
Sulfate	mg/L	20	20.1	100	90-110	N2

MATRIX SPIKE SAMPLE: 781694

Parameter	Units	5067022009	Spike	MS	MS	% Rec	% Rec	Qualifiers
		Result	Conc.	Result	% Rec	Limits	Limits	
Sulfate	mg/L	30.5	50	89.0	117	90-110	90-110	M0,N2

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 781695   781696

Parameter	Units	5067160001	MS	MSD	MS	% Rec	MSD	% Rec	% Rec	Max	RPD	RPD	Qual
		Result	Spike	Spike	Result	Result	Result	Result	Limits	RPD	RPD	RPD	Qual
Sulfate	mg/L	36.0	50	50	95.5	93.5	119	115	90-110	2	20	20	M3,N2

## QUALIFIERS

Project: MI Plaza M01046

Pace Project No.: 5067229

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

M3 Matrix spike recovery was outside laboratory control limits due to matrix interferences.

N2 The lab does not hold TNI accreditation for this parameter.

**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: MI Plaza M01046  
Pace Project No.: 5067229

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
5067229001	MW-170S	EPA 8260	MSV/44768		
5067229002	MW-167D	EPA 8260	MSV/44768		
5067229003	MW-168D	EPA 8260	MSV/44768		
5067229004	MW-170D	EPA 8260	MSV/44768		
5067229005	MMW-15D	EPA 8260	MSV/44768		
5067229006	MMW-15S	EPA 8260	MSV/44768		
5067229007	MMW-C-17D	EPA 8260	MSV/44768		
5067229008	MMW-C-16D	EPA 8260	MSV/44768		
5067229009	MMW-C-16S	EPA 8260	MSV/44768		
5067229010	MMW-P-12S	EPA 8260	MSV/44768		
5067229011	MMW-P-12D	EPA 8260	MSV/44768		
5067229012	MMW-P-11S	EPA 8260	MSV/44768		
5067229013	MMW-P-11DR	EPA 8260	MSV/44768		
5067229014	MMW-P-14S	EPA 8260	MSV/44768		
5067229015	MMW-P-14D	EPA 8260	MSV/44768		
5067229016	MMW-P-13S	EPA 8260	MSV/44768		
5067229017	MMW-P-13D	EPA 8260	MSV/44768		
5067229018	Trip Blank	EPA 8260	MSV/44768		
5067229010	MMW-P-12S	SM 5310C	OHIO/3737		
5067229011	MMW-P-12D	SM 5310C	OHIO/3737		
5067229012	MMW-P-11S	SM 5310C	OHIO/3737		
5067229013	MMW-P-11DR	SM 5310C	OHIO/3737		
5067229010	MMW-P-12S	EPA 353.2	WETA/8439		
5067229011	MMW-P-12D	EPA 353.2	WETA/8439		
5067229012	MMW-P-11S	EPA 353.2	WETA/8439		
5067229013	MMW-P-11DR	EPA 353.2	WETA/8439		
5067229010	MMW-P-12S	ASTM D516-90,02	WETA/8464		
5067229011	MMW-P-12D	ASTM D516-90,02	WETA/8464		
5067229012	MMW-P-11S	ASTM D516-90,02	WETA/8464		
5067229013	MMW-P-11DR	ASTM D516-90,02	WETA/8464		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.



# CHAIN-OF-CUSTODY / Analytical Request Document

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Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:																																																																																																																									
Company: <b>Marsell, J. Inc.</b> Address: <b>1055 Danforth Ave.,</b> <b>Toronto, ON</b>		Report To: <b>Mark Bichney</b> Copy To: <b>None</b>		Attention: <b>Marcie Chee</b> Company Name: <b>Marsell</b>																																																																																																																									
Email To: <b>None</b>		Purchase Order No.: <b>None</b>		Address: Pace Quote Reference: Pace Project Manager: Pace Profile #:																																																																																																																									
Phone: <b>None</b>		Project Name: <b>M. Chee</b> Project Number: <b>Marsell</b>		Residual Chlorine (Y/N)																																																																																																																									
Requested Due Date/TAT: <b>3/1</b>				Site Location: _____ State: _____																																																																																																																									
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Section F ADDITIONAL COMMENTS																																																																																																																													
<p><b>REINFORCED BY / AFFILIATION</b></p> <p><b>John Doe</b></p>																																																																																																																													
Section G SAMPLER NAME AND SIGNATURE																																																																																																																													
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Section I F-ALL-Q-H20rev.07, 15-May-2007																																																																																																																													
<p>*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.</p>																																																																																																																													

## Sample Condition Upon Receipt

Pace Analytical

Client Name MundellProject # 5067229Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace Other \_\_\_\_\_

Tracking #: \_\_\_\_\_

Custody Seal on Cooler/Box Present:  yes  noSeals intact:  yes  no

Date/Time 5035A kits placed in freezer

Packing Material:  Bubble Wrap  Bubble Bags  None  Otherfoam blocks/ICPThermometer Used 1 2 3 4 6 A B C D EType of Ice: Wet Blue None

Cooler Temperature

3.1

(Corrected, if applicable)

Ice Visible in Sample Containers:

 yes  noComments: Date and Initials of person examining contents: 8/8/12 Colif

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Short Hold Time Analysis (<72hr):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5. <u>tool copy to wetchem</u>
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sample Labels match COC: -Includes date/time/ID/Analysis	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
All containers needing acid/base pres. have been checked? exceptions: VOA, coliform, TOC, O&G	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	9. (Circle) HNO3 H2SO4 NaOH HCl
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Headspace in VOA Vials (>6mm):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10. <u>VIAL mmw-p-11S &gt;6mm "x" placed on cap.</u>
Trip Blank Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11. <u>4 TBS Received</u>
Trip Blank Custody Seals Present	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	

## Project Manager Review

Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	14.

## Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_Project Manager Review: J. DwyerDate: 8/8/12

# Sample Container Count

CLIENT: Mondel  
 COC PAGE 1 of 2  
 COC ID# 1552190

Pace Analytical  
<http://paceanalyticals.com>

Project # 5007229

Sample Line Item	DG9H	AG1U	WG FU	AG0U	R 4 / 6	BP2N	BP2U	BP2S	BP3N	BP3U	BP3S	AG3S	AG1H	Comments
1	3													
2														
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														

## Container Codes

DG9H	40mL HCl amber vial	AG0U	100mL unpreserved amber glass	BP1N	1 liter HNO3 plastic	DG9P	40mL TSP amber vial
AG1U	1 liter unpreserved amber glass	AG1H	1 liter HCl amber glass	BP1S	1 liter H2SO4 plastic	DG9S	40mL H2SO4 amber vial
WG FU	4oz clear soil jar	AG1S	1 liter H2SO4 amber glass	BP1U	1 liter unpreserved plastic	DG9T	40mL Na Thio amber vial
R terra core kit		AG1T	1 liter Na Thiosulfate amber gl	BP1Z	1 liter NaOH, Zn, Ac	DG9U	40mL unpreserved amber vial
BP2N	500mL HNO3 plastic	AG2N	500mL HNC3 amber glass	BP2A	500mL NaOH, Asc Acid plastic	Wipe/Swab	
BP2U	500mL unpreserved plastic	AG2S	500mL H2SO4 amber glass	BP2O	500mL NaOH plastic	JGFU	4oz unpreserved amber wide
BP2S	500mL H2SO4 plastic	AG2U	500ml unpreserved amber gla	BP2Z	500mL NaOH, Zn Ac	U	Summa Can
BP3N	250mL HNO3 plastic	AG3U	250mL unpreserved amber gla	AF	Air Filter	VG9H	40mL HCL clear vial
BP3U	250mL unpreserved plastic	BG1H	1 liter HCL clear glass	BP3C	250mL NaOH plastic	VG9T	40mL Na Thio. clear vial
BP3S	250mL H2SO4 plastic	BG1S	1 liter H2SO4 clear glass	BP3Z	250mL NaOH, Zn Ac plastic	VG9U	40mL unpreserved clear vial
AG3S	250mL H2SO4 glass amber	BG1T	1 liter Na Thiosulfate clear gla	C	Air CassetteS	VSG	Headspace septa vial & HCL
AG1S	1 liter H2SO4 amber glass	BG1U	1 liter unpreserved glass	DG9B	40mL Na Bisulfate amber vial	WGFX	4oz wide jar w/hexane wipe
BPIU	1 liter unpreserved plastic	BP1A	1 liter NaOH, Asc Acid plastic	DG9M	40mL MeOH clear vial	ZPLC	Ziploc Bag

Mundell

CLIENT:

COC PAGE 2 of 2  
COC ID# 1550191

## Sample Container Count

Project # SD67229

Sample Line

Item	DG9H	AG1U	WGFU	AG0U	R 4/6	BP2N	BP2U	BP2S	BP3N	BP3U	BP3S	AG3S	AG11H	Comments
1	3													
2														
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														

### Container Codes

DG9H	40mL HCL amber vial	AG0U	100mL unpreserved amber glass	BP1N	1 liter HNO3 plastic	DG9P	40mL TSP amber vial
AG1U	1liter unpreserved amber glass	AG1H	1 liter HCl amber glass	BP1S	1 liter H2SO4 plastic	DG9S	40mL H2SO4 amber vial
WGFU	4oz clear soil jar	AG1S	1 liter H2SO4 amber glass	BP1U	1 liter unpreserved plastic	DG9T	40mL Na Thio amber vial
R	terra core kit	AG1T	1 liter Na Thiosulfate amber gl	BP1Z	1 liter NaOH, Zn, Ac	DG9U	40mL unpreserved amber vial
BP2N	500mL HNO3 plastic	AG2N	500mL HNO3 amber glass	BP2A	500mL NaOH, Asc Acid plastic	JGFU	1 Wipe/Swab
BP2U	500mL unpreserved plastic	AG2S	500mL H2SO4 amber glass	BP2O	500mL NaOH plastic	JGFU	4oz unpreserved amber wide
BP2S	500mL H2SO4 plastic	AG2U	500mL unpreserved amber gla	BP2Z	500mL NaOH, Zn Ac	U	Summa Can
BP3N	250mL HNO3 plastic	AG3U	250mL unpreserved amber gla	AF	Air Filter	VG9H	40mL HCL clear vial
BP3U	250mL unpreserved plastic	BG1H	1 liter HCL clear glass	BP3C	250mL NaOH plastic	VG9T	40mL Na Thio. clear vial
BP3S	250mL H2SO4 plastic	BG1S	1 liter H2SO4 clear glass	BP3Z	250mL NaOH, Zn Ac plastic	VG9U	40mL unpreserved clear vial
AG3S	250mL H2SO4 glass amber	BG1T	1 liter Na Thiosulfate clear gla	C	Air Cassettees	VSG	Headspace septa vial & HCl
AG1S	1 liter H2SO4 amber glass	BG1U	1 liter unpreserved glass	DG9B	40mL Na Bisulfate amber vial	WGFX	4oz wide jar w/hexane wipe
BP1U	1 liter unpreserved plastic	BP1A	1 liter NaOH, Asc Acid plastic	DG9M	40mL MeOH clear vial	ZPLC	Ziploc Bag

August 21, 2012

Mr. Mark Breting  
Mundell & Associates  
110 S. Downey Ave.  
Indianapolis, IN 46228

RE: Project: MI Plaza M01046  
Pace Project No.: 5067393

Dear Mr. Breting:

Enclosed are the analytical results for sample(s) received by the laboratory on August 10, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Tina Sayer

tina.sayer@pacelabs.com  
Project Manager

Enclosures



#### REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: MI Plaza M01046  
Pace Project No.: 5067393

---

### Indiana Certification IDs

7726 Moller Road, Indianapolis, IN 46268  
Illinois Certification #: 200074  
Indiana Certification #: C-49-06  
Kansas Certification #: E-10247  
Kentucky Certification #: 0042

Louisiana/NELAC Certification #: 04076  
Ohio VAP Certification #: CL0065  
Pennsylvania Certification #: 68-04991  
West Virginia Certification #: 330

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## REPORT OF LABORATORY ANALYSIS

Page 2 of 13

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## SAMPLE SUMMARY

Project: MI Plaza M01046

Pace Project No.: 5067393

Lab ID	Sample ID	Matrix	Date Collected	Date Received
5067393001	MMW-P-04	Water	08/08/12 09:15	08/10/12 11:15
5067393002	MMW-C-02D	Water	08/08/12 10:03	08/10/12 11:15
5067393003	EQ Blank	Water	08/08/12 11:00	08/10/12 11:15
5067393004	Dup 1	Water	08/08/12 08:00	08/10/12 11:15
5067393005	Field Blank	Water	08/08/12 11:15	08/10/12 11:15

## REPORT OF LABORATORY ANALYSIS

Page 3 of 13

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## SAMPLE ANALYTE COUNT

Project: MI Plaza M01046  
 Pace Project No.: 5067393

Lab ID	Sample ID	Method	Analysts	Analytes Reported
5067393001	MMW-P-04	EPA 8260	JLZ	18
5067393002	MMW-C-02D	EPA 8260	JLZ	18
5067393003	EQ Blank	EPA 8260	JLZ	18
5067393004	Dup 1	EPA 8260	JLZ	18
5067393005	Field Blank	EPA 8260	JLZ	18

## REPORT OF LABORATORY ANALYSIS

Page 4 of 13

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## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5067393

Sample: MMW-P-04	Lab ID: 5067393001	Collected: 08/08/12 09:15	Received: 08/10/12 11:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		08/14/12 15:25	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		08/14/12 15:25	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/14/12 15:25	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/14/12 15:25	75-35-4	
cis-1,2-Dichloroethene	<b>5.8</b>	ug/L	5.0	1		08/14/12 15:25	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		08/14/12 15:25	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		08/14/12 15:25	100-41-4	
Methylene Chloride	ND	ug/L	5.0	1		08/14/12 15:25	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/14/12 15:25	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		08/14/12 15:25	127-18-4	
Toluene	ND	ug/L	5.0	1		08/14/12 15:25	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/14/12 15:25	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/14/12 15:25	79-01-6	
Vinyl chloride	<b>2.7</b>	ug/L	2.0	1		08/14/12 15:25	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/14/12 15:25	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	106 %.		83-123	1		08/14/12 15:25	1868-53-7	
4-Bromofluorobenzene (S)	101 %.		72-125	1		08/14/12 15:25	460-00-4	
Toluene-d8 (S)	97 %.		81-114	1		08/14/12 15:25	2037-26-5	

## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5067393

Sample: MMW-C-02D	Lab ID: 5067393002	Collected: 08/08/12 10:03	Received: 08/10/12 11:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		08/14/12 16:29	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		08/14/12 16:29	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/14/12 16:29	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/14/12 16:29	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		08/14/12 16:29	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		08/14/12 16:29	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		08/14/12 16:29	100-41-4	
Methylene Chloride	ND	ug/L	5.0	1		08/14/12 16:29	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/14/12 16:29	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		08/14/12 16:29	127-18-4	
Toluene	ND	ug/L	5.0	1		08/14/12 16:29	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/14/12 16:29	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/14/12 16:29	79-01-6	
Vinyl chloride	95.1	ug/L	2.0	1		08/14/12 16:29	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/14/12 16:29	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	104 %.		83-123	1		08/14/12 16:29	1868-53-7	
4-Bromofluorobenzene (S)	99 %.		72-125	1		08/14/12 16:29	460-00-4	
Toluene-d8 (S)	101 %.		81-114	1		08/14/12 16:29	2037-26-5	

## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5067393

Sample: EQ Blank	Lab ID: 5067393003	Collected: 08/08/12 11:00	Received: 08/10/12 11:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		08/14/12 17:01	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		08/14/12 17:01	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/14/12 17:01	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/14/12 17:01	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		08/14/12 17:01	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		08/14/12 17:01	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		08/14/12 17:01	100-41-4	
Methylene Chloride	ND	ug/L	5.0	1		08/14/12 17:01	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/14/12 17:01	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		08/14/12 17:01	127-18-4	
Toluene	ND	ug/L	5.0	1		08/14/12 17:01	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/14/12 17:01	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/14/12 17:01	79-01-6	
Vinyl chloride	ND	ug/L	2.0	1		08/14/12 17:01	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/14/12 17:01	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	102 %.		83-123	1		08/14/12 17:01	1868-53-7	
4-Bromofluorobenzene (S)	101 %.		72-125	1		08/14/12 17:01	460-00-4	
Toluene-d8 (S)	102 %.		81-114	1		08/14/12 17:01	2037-26-5	

## ANALYTICAL RESULTS

Project: MI Plaza M01046  
Pace Project No.: 5067393

Sample: Dup 1	Lab ID: 5067393004	Collected: 08/08/12 08:00	Received: 08/10/12 11:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		08/14/12 17:33	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		08/14/12 17:33	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/14/12 17:33	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/14/12 17:33	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		08/14/12 17:33	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		08/14/12 17:33	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		08/14/12 17:33	100-41-4	
Methylene Chloride	ND	ug/L	5.0	1		08/14/12 17:33	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/14/12 17:33	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		08/14/12 17:33	127-18-4	
Toluene	ND	ug/L	5.0	1		08/14/12 17:33	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/14/12 17:33	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/14/12 17:33	79-01-6	
Vinyl chloride	102	ug/L	2.0	1		08/14/12 17:33	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/14/12 17:33	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	105 %.		83-123	1		08/14/12 17:33	1868-53-7	
4-Bromofluorobenzene (S)	97 %.		72-125	1		08/14/12 17:33	460-00-4	
Toluene-d8 (S)	98 %.		81-114	1		08/14/12 17:33	2037-26-5	

## ANALYTICAL RESULTS

Project: MI Plaza M01046

Pace Project No.: 5067393

Sample: Field Blank	Lab ID: 5067393005	Collected: 08/08/12 11:15	Received: 08/10/12 11:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		08/14/12 18:05	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		08/14/12 18:05	56-23-5	
Chloroform	ND	ug/L	5.0	1		08/14/12 18:05	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/14/12 18:05	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		08/14/12 18:05	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		08/14/12 18:05	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		08/14/12 18:05	100-41-4	
Methylene Chloride	ND	ug/L	5.0	1		08/14/12 18:05	75-09-2	
Naphthalene	ND	ug/L	5.0	1		08/14/12 18:05	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		08/14/12 18:05	127-18-4	
Toluene	ND	ug/L	5.0	1		08/14/12 18:05	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/14/12 18:05	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		08/14/12 18:05	79-01-6	
Vinyl chloride	ND	ug/L	2.0	1		08/14/12 18:05	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		08/14/12 18:05	1330-20-7	
<b>Surrogates</b>								
Dibromofluoromethane (S)	105 %.		83-123	1		08/14/12 18:05	1868-53-7	
4-Bromofluorobenzene (S)	100 %.		72-125	1		08/14/12 18:05	460-00-4	
Toluene-d8 (S)	101 %.		81-114	1		08/14/12 18:05	2037-26-5	



Pace Analytical Services, Inc.

1233 Dublin Road  
Columbus, OH 43215  
(614)486-5421

Pace Analytical Services, Inc.

7726 Moller Road  
dianapolis, IN 46268  
(317)875-5894

## **QUALITY CONTROL DATA**

Project: MI Plaza M01046

Pace Project No.: 5067393

QC Batch: MSV/44874 Analysis Method: EPA 8260  
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV  
Associated Lab Samples: 5067393001, 5067393002, 5067393003, 5067393004, 5067393005

METHOD BLANK: 781268 Matrix: Water

Associated Lab Samples: 5067393001, 5067393002, 5067393003, 5067393004, 5067393005

Parameter	Units	Blank	Reporting	Analyzed	Qualifiers
		Result	Limit		
1,1,1-Trichloroethane	ug/L	ND	5.0	08/14/12 13:17	
1,1-Dichloroethene	ug/L	ND	5.0	08/14/12 13:17	
Benzene	ug/L	ND	5.0	08/14/12 13:17	
Carbon tetrachloride	ug/L	ND	5.0	08/14/12 13:17	
Chloroform	ug/L	ND	5.0	08/14/12 13:17	
cis-1,2-Dichloroethene	ug/L	ND	5.0	08/14/12 13:17	
Ethylbenzene	ug/L	ND	5.0	08/14/12 13:17	
Methylene Chloride	ug/L	ND	5.0	08/14/12 13:17	
Naphthalene	ug/L	ND	5.0	08/14/12 13:17	
Tetrachloroethene	ug/L	ND	5.0	08/14/12 13:17	
Toluene	ug/L	ND	5.0	08/14/12 13:17	
trans-1,2-Dichloroethene	ug/L	ND	5.0	08/14/12 13:17	
Trichloroethene	ug/L	ND	5.0	08/14/12 13:17	
Vinyl chloride	ug/L	ND	2.0	08/14/12 13:17	
Xylene (Total)	ug/L	ND	10.0	08/14/12 13:17	
4-Bromofluorobenzene (S)	%.	99	72-125	08/14/12 13:17	
Dibromofluoromethane (S)	%.	101	83-123	08/14/12 13:17	
Toluene-d8 (S)	%.	99	81-114	08/14/12 13:17	

LABORATORY CONTROL SAMPLE: 781269

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	48.5	97	69-126	
1,1-Dichloroethene	ug/L	50	45.7	91	75-145	
Benzene	ug/L	50	41.1	82	76-123	
Carbon tetrachloride	ug/L	50	44.8	90	65-125	
Chloroform	ug/L	50	44.1	88	73-122	
cis-1,2-Dichloroethene	ug/L	50	42.7	85	79-129	
Ethylbenzene	ug/L	50	44.2	88	75-120	
Methylene Chloride	ug/L	50	45.6	91	61-138	
Naphthalene	ug/L	50	44.2	88	62-130	
Tetrachloroethene	ug/L	50	44.5	89	57-125	
Toluene	ug/L	50	41.6	83	72-124	
trans-1,2-Dichloroethene	ug/L	50	40.3	81	71-145	
Trichloroethene	ug/L	50	42.7	85	77-122	
Vinyl chloride	ug/L	50	37.3	75	61-146	
Xylene (Total)	ug/L	150	128	86	72-126	
4-Bromofluorobenzene (S)	%.			100	72-125	
Dibromofluoromethane (S)	%.			102	83-123	
Toluene-d8 (S)	%.			103	81-114	

Date: 08/21/2012 01:10 PM

## **REPORT OF LABORATORY ANALYSIS**

Page 10 of 13

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## QUALITY CONTROL DATA

Project: MI Plaza M01046

Pace Project No.: 5067393

---

MATRIX SPIKE SAMPLE: 781270

Parameter	Units	5067328001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	50	45.5	91	37-136	
1,1-Dichloroethene	ug/L	ND	50	42.8	86	54-152	
Benzene	ug/L	ND	50	37.0	74	52-134	
Carbon tetrachloride	ug/L	ND	50	40.5	81	26-136	
Chloroform	ug/L	ND	50	39.6	79	50-134	
cis-1,2-Dichloroethene	ug/L	ND	50	38.3	77	48-145	
Ethylbenzene	ug/L	ND	50	38.4	77	29-132	
Methylene Chloride	ug/L	ND	50	40.2	80	47-141	
Naphthalene	ug/L	ND	50	35.5	71	40-124	
Tetrachloroethene	ug/L	ND	50	39.4	79	30-124	
Toluene	ug/L	ND	50	36.7	73	42-130	
trans-1,2-Dichloroethene	ug/L	ND	50	37.3	75	48-144	
Trichloroethene	ug/L	ND	50	38.0	76	44-130	
Vinyl chloride	ug/L	ND	50	34.4	69	45-159	
Xylene (Total)	ug/L	ND	150	111	74	29-131	
4-Bromofluorobenzene (S)	%.				101	72-125	
Dibromofluoromethane (S)	%.				104	83-123	
Toluene-d8 (S)	%.				101	81-114	

## QUALIFIERS

Project: MI Plaza M01046

Pace Project No.: 5067393

---

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MI Plaza M01046  
 Pace Project No.: 5067393

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
5067393001	MMW-P-04	EPA 8260	MSV/44874		
5067393002	MMW-C-02D	EPA 8260	MSV/44874		
5067393003	EQ Blank	EPA 8260	MSV/44874		
5067393004	Dup 1	EPA 8260	MSV/44874		
5067393005	Field Blank	EPA 8260	MSV/44874		



**Sample Condition Upon Receipt**

*Pace Analytical*

Client Name: Mundell Project # 5067393

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace Other \_\_\_\_\_

Tracking #: \_\_\_\_\_

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other Foam

Thermometer Used 1 2 3 4 6 A B C D E Type of Ice: Wet Blue None  Samples on ice, cooling process has begun

Cooler Temperature (Corrected, if applicable) 4.5°C Ice Visible in Sample Containers:  yes  no

Temp should be above freezing to 6°C Comments: Date and Initials of person examining contents: 8/10/12 JMW

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	5.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sample Labels match COC: -Includes date/time/ID/Analysis	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	8. <u>Container = 3 TB</u> <u>Act Rec'd = X</u>
All containers needing acid/base pres. have been checked? exceptions: VOA, coliform, TOC, O&G	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	9. (Circle) HNO3 H <sub>2</sub> SO4 NaOH HCl
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	10.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

Project Manager Review		
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
Sufficient Volume:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
Correct Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	14.

Client Notification/ Resolution: Field Data Required? Y / N  
Person Contacted: Andy Dimmeyer Date/Time: 8/10/12 via email

Comments/ Resolution: Cancel trip blank

Project Manager Review: J Sawyer Date: 8/10/12

CLIENT: Muncie & Assoc

## Sample Container Count

COC PAGE 1 of 1  
COC ID# TS1974

Project # 5067393

Pace Analytical  
www.paceanalytical.com

Sample Line Item	DG9H	AG1U	WG FU	AG0U	R 4 / 6	BP2N	BP2U	BP2S	BP3N	BP3U	BP3S	AG3S	AG1H	Comments
1	3													
2	3													
3	3													
4	3													
5	3													
6	3													
7														
8														
9														
10														
11														
12														

### Container Codes

DG9H	40mL HCl amber vva vial	AG0U	100mL unpreserved amber glass	BP1N	1 liter HNO3 plastic	BP1S	1 liter H2SO4 plastic	BP1U	1 liter H2SO4 amber glass	BP1T	1 liter H2SO4 plastic	BP2A	500mL NaOH, Asc Acid plastic	BP2O	500mL NaOH plastic	BP2Z	500mL NaOH, Zn Ac	BP3C	250mL NaOH plastic	BP3Z	250mL NaOH, Zn Ac plastic	BP3U	250mL HCl clear glass	BP3S	1 liter H2SO4 plastic	BP3T	1 liter H2SO4 clear glass	BP3U	1 liter H2SO4 glass amber	BP3V	1 liter Na Thiosulfate clear gla	BP3W	1 liter Na Thiosulfate clear gla	BP3X	1 liter Na Bisulfite amber vial	BP3Y	1 liter Na Bisulfite amber vial	BP3Z	40mL MeOH clear vial
------	-------------------------	------	-------------------------------	------	----------------------	------	-----------------------	------	---------------------------	------	-----------------------	------	------------------------------	------	--------------------	------	-------------------	------	--------------------	------	---------------------------	------	-----------------------	------	-----------------------	------	---------------------------	------	---------------------------	------	----------------------------------	------	----------------------------------	------	---------------------------------	------	---------------------------------	------	----------------------



Microseeps, Inc  
220 William Pitt Way  
Pittsburgh, PA 15238  
Phone: (412) 826-5245  
Fax: (412) 826-3433

August 17, 2012

Merle Tebbe  
Mundell & Associates, Inc.  
110 South Downey Ave.  
Indianapolis, IN 46219

RE: MI PLAZA / M01046

*Microseeps Workorder: 6244*

Dear Merle Tebbe:

Enclosed are the analytical results for sample(s) received by the laboratory on Thursday, August 09, 2012. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

*Julianne C. Sproull AGR 8-17-12*

Julianne Sproull 08/17/2012  
jsproull@microseeps.com

Enclosures

As a valued client we would appreciate your comments on our service.

Please email info@microseeps.com.

Total Number of Pages *37*

Report ID: 6244 - 267782

Page 1 of 33

#### CERTIFICATE OF ANALYSIS

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## LABORATORY ACCREDITATIONS & CERTIFICATIONS

<b>Accreditor:</b>	Pennsylvania Department of Environmental Protection, Bureau of Laboratories	
<b>Accreditation ID:</b>	02-00538	
<b>Scope:</b>	NELAP Non-Potable Water and Solid & Hazardous Waste	
<b>Accreditor:</b>	NELAP: State of Florida, Department of Health, Bureau of Laboratories	
<b>Accreditation ID:</b>	E87832	
<b>Scope:</b>	Clean Water Act (CWA)	Resource Conservation and Recovery Act (RCRA)
<b>Accreditor:</b>	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification	
<b>Accreditation ID:</b>	89009003	
<b>Scope:</b>	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)	
<b>Accreditor:</b>	NELAP: State of Louisiana, Department of Environmental Quality	
<b>Accreditation ID:</b>	04104	
<b>Scope:</b>	Solid and Chemical Materials; Non-Potable Water	
<b>Accreditor:</b>	NELAP: New Jersey, Department of Environmental Protection	
<b>Accreditation ID:</b>	PA026	
<b>Scope:</b>	Non-Potable Water; Solid and Chemical Materials	
<b>Accreditor:</b>	NELAP: New York, Department of Health Wadsworth Center	
<b>Accreditation ID:</b>	11815	
<b>Scope:</b>	Non-Potable Water; Solid and Hazardous Waste	
<b>Accreditor:</b>	State of Connecticut, Department of Public Health, Division of Environmental Health	
<b>Accreditation ID:</b>	PH-0263	
<b>Scope:</b>	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)	
<b>Accreditor:</b>	NELAP: Texas, Commission on Environmental Quality	
<b>Accreditation ID:</b>	T104704453-09-TX	
<b>Scope:</b>	Non-Potable Water	
<b>Accreditor:</b>	State of New Hampshire	
<b>Accreditation ID:</b>	299409	
<b>Scope:</b>	Non-potable water	
<b>Accreditor:</b>	State of Georgia	
<b>Accreditation ID:</b>	Chapter 391-3-26	
<b>Scope:</b>	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, Microseeps is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).	

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Fax: (412) 826-3433

## SAMPLE SUMMARY

Workorder: 6244 MI PLAZA / M01046

Lab ID	Sample ID	Matrix	Date Collected	Date Received
62440001	MMW-P-02	Water	8/1/2012 09:53	8/9/2012 08:15
62440002	MMW-P-03D	Water	8/1/2012 10:53	8/9/2012 08:15
62440003	MMW-P-03S	Water	8/1/2012 11:37	8/9/2012 08:15
62440004	MMW-C-01	Water	8/1/2012 14:29	8/9/2012 08:15
62440005	MMW-9S	Water	8/2/2012 08:56	8/9/2012 08:15
62440006	MMW-10S	Water	8/2/2012 09:35	8/9/2012 08:15
62440007	MMW-1S	Water	8/2/2012 10:09	8/9/2012 08:15
62440008	MMW-8S	Water	8/2/2012 10:39	8/9/2012 08:15
62440009	MMW-P-05	Water	8/2/2012 11:43	8/9/2012 08:15
62440010	MMW-P-10S	Water	8/2/2012 12:17	8/9/2012 08:15
62440011	MMW-P-10D	Water	8/2/2012 12:55	8/9/2012 08:15
62440012	MMW-P-08	Water	8/2/2012 13:34	8/9/2012 08:15
62440013	MMW-P-07	Water	8/2/2012 14:04	8/9/2012 08:15
62440014	MMW-P-01	Water	8/2/2012 14:35	8/9/2012 08:15
62440015	MMW-P-06	Water	8/2/2012 15:06	8/9/2012 08:15
62440016	MMW-P-12S	Water	8/7/2012 09:33	8/9/2012 08:15
62440017	MMW-P-12D	Water	8/7/2012 10:38	8/9/2012 08:15
62440018	MMW-P-11S	Water	8/7/2012 12:05	8/9/2012 08:15
62440019	MMW-P-11D	Water	8/7/2012 12:50	8/9/2012 08:15
62440020	MMW-9S MS	Water	8/2/2012 08:56	8/9/2012 08:15
62440021	MMW-9S MSD	Water	8/2/2012 08:56	8/9/2012 08:15
62440022	DUP2	Water	8/2/2012 12:17	8/9/2012 08:15

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## PROJECT SUMMARY

Workorder: 6244 MI PLAZA / M01046

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### Batch Comments

---

**Batch:** DISG/2362 - AM20GAX Water QC

The matrix spike and/or matrix spike duplicate, recovery or relative percent difference; accuracy influenced by the concentration of the reference sample; 62440005. Analyte Methane. Batch acceptance based on laboratory control sample recovery.

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## ANALYTICAL RESULTS

Workorder: 6244 MI PLAZA / M01046

Lab ID: 62440001 Date Received: 8/9/2012 08:15 Matrix: Water  
Sample ID: MMW-P-02 Date Collected: 8/1/2012 09:53

Parameters	Results	Units	RDL	MDL	DF Prepared	By	Analyzed	By	Qual
------------	---------	-------	-----	-----	-------------	----	----------	----	------

### RISK - MICR

Analysis Desc: AM20GAX Analytical Method: AM20GAX

Methane	15000	ug/l	0.10	0.018	1	8/14/2012 08:38	BW
Ethane	1.5	ug/l	0.025	0.0070	1	8/14/2012 08:38	BW
Ethene	160	ug/l	0.025	0.0050	1	8/14/2012 08:38	BW

### EDonors - MICR

Analysis Desc: AM23G Analytical Method: AM23G

Lactic Acid	0.018J	mg/l	0.10	0.010	1	8/14/2012 18:37	KB
Acetic Acid	0.070 U	mg/l	0.070	0.0060	1	8/14/2012 18:37	KB
Propionic Acid	0.050 U	mg/l	0.050	0.0070	1	8/14/2012 18:37	KB
Butyric Acid	0.050 U	mg/l	0.050	0.0040	1	8/14/2012 18:37	KB
Pyruvic Acid	0.15 U	mg/l	0.15	0.033	1	8/14/2012 18:37	KB
i-Pentanoic Acid	0.15 U	mg/l	0.15	0.044	1	8/14/2012 18:37	KB
Pentanoic Acid	0.070 U	mg/l	0.070	0.012	1	8/14/2012 18:37	KB
i-Hexanoic Acid	0.050 U	mg/l	0.050	0.0060	1	8/14/2012 18:37	KB
Hexanoic Acid	0.050 U	mg/l	0.050	0.0060	1	8/14/2012 18:37	KB

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## ANALYTICAL RESULTS

Workorder: 6244 MI PLAZA / M01046

Lab ID: 62440002 Date Received: 8/9/2012 08:15 Matrix: Water  
Sample ID: MMW-P-03D Date Collected: 8/1/2012 10:53

Parameters	Results	Units	RDL	MDL	DF Prepared	By	Analyzed	By	Qual
<b>RISK - MICR</b>									
Analysis Desc: AM20GAX Analytical Method: AM20GAX									
Methane	21000	ug/l	0.10	0.018	1			8/14/2012 08:48	BW
Ethane	18	ug/l	0.025	0.0070	1			8/14/2012 08:48	BW
Ethene	3200	ug/l	0.025	0.0050	1			8/14/2012 08:48	BW
<b>EDonors - MICR</b>									
Analysis Desc: AM23G Analytical Method: AM23G									
Lactic Acid	0.10 U	mg/l	0.10	0.010	1			8/14/2012 19:19	KB
Acetic Acid	8.6	mg/l	0.070	0.0060	1			8/14/2012 19:19	KB
Propionic Acid	0.38	mg/l	0.050	0.0070	1			8/14/2012 19:19	KB
Butyric Acid	0.046J	mg/l	0.050	0.0040	1			8/14/2012 19:19	KB
Pyruvic Acid	0.15 U	mg/l	0.15	0.033	1			8/14/2012 19:19	KB
i-Pentanoic Acid	0.15 U	mg/l	0.15	0.044	1			8/14/2012 19:19	KB
Pentanoic Acid	0.070 U	mg/l	0.070	0.012	1			8/14/2012 19:19	KB
i-Hexanoic Acid	0.050 U	mg/l	0.050	0.0060	1			8/14/2012 19:19	KB
Hexanoic Acid	0.050 U	mg/l	0.050	0.0060	1			8/14/2012 19:19	KB

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## ANALYTICAL RESULTS

Workorder: 6244 MI PLAZA / M01046

Lab ID: 62440003 Date Received: 8/9/2012 08:15 Matrix: Water  
Sample ID: MMW-P-03S Date Collected: 8/1/2012 11:37

Parameters	Results	Units	RDL	MDL	DF Prepared	By	Analyzed	By	Qual
<b>RISK - MICR</b>									
Analysis Desc: AM20GAX Analytical Method: AM20GAX									
Methane	17000	ug/l	0.10	0.018	1			8/14/2012 08:58	BW
Ethane	1.7	ug/l	0.025	0.0070	1			8/14/2012 08:58	BW
Ethene	1500	ug/l	0.025	0.0050	1			8/14/2012 08:58	BW
<b>EDonors - MICR</b>									
Analysis Desc: AM23G Analytical Method: AM23G									
Lactic Acid	0.11	mg/l	0.10	0.010	1			8/14/2012 20:01	KB
Acetic Acid	0.26	mg/l	0.070	0.0060	1			8/14/2012 20:01	KB
Propionic Acid	0.041J	mg/l	0.050	0.0070	1			8/14/2012 20:01	KB
Butyric Acid	0.050 U	mg/l	0.050	0.0040	1			8/14/2012 20:01	KB
Pyruvic Acid	0.15 U	mg/l	0.15	0.033	1			8/14/2012 20:01	KB
i-Pentanoic Acid	0.15 U	mg/l	0.15	0.044	1			8/14/2012 20:01	KB
Pentanoic Acid	0.070 U	mg/l	0.070	0.012	1			8/14/2012 20:01	KB
i-Hexanoic Acid	0.050 U	mg/l	0.050	0.0060	1			8/14/2012 20:01	KB
Hexanoic Acid	0.050 U	mg/l	0.050	0.0060	1			8/14/2012 20:01	KB

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## ANALYTICAL RESULTS

Workorder: 6244 MI PLAZA / M01046

Lab ID: 62440004 Date Received: 8/9/2012 08:15 Matrix: Water  
Sample ID: MMW-C-01 Date Collected: 8/1/2012 14:29

Parameters	Results	Units	RDL	MDL	DF Prepared	By	Analyzed	By	Qual
<b>RISK - MICR</b>									
Analysis Desc: AM20GAX Analytical Method: AM20GAX									
Methane	14000	ug/l	0.10	0.018	1			8/14/2012 09:09	BW
Ethane	0.13	ug/l	0.025	0.0070	1			8/14/2012 09:09	BW
Ethene	3.7	ug/l	0.025	0.0050	1			8/14/2012 09:09	BW
<b>EDonors - MICR</b>									
Analysis Desc: AM23G Analytical Method: AM23G									
Lactic Acid	0.094J	mg/l	0.10	0.010	1			8/14/2012 20:43	KB
Acetic Acid	0.0086J	mg/l	0.070	0.0060	1			8/14/2012 20:43	KB
Propionic Acid	0.050 U	mg/l	0.050	0.0070	1			8/14/2012 20:43	KB
Butyric Acid	0.050 U	mg/l	0.050	0.0040	1			8/14/2012 20:43	KB
Pyruvic Acid	0.15 U	mg/l	0.15	0.033	1			8/14/2012 20:43	KB
i-Pentanoic Acid	0.15 U	mg/l	0.15	0.044	1			8/14/2012 20:43	KB
Pentanoic Acid	0.070 U	mg/l	0.070	0.012	1			8/14/2012 20:43	KB
i-Hexanoic Acid	0.050 U	mg/l	0.050	0.0060	1			8/14/2012 20:43	KB
Hexanoic Acid	0.050 U	mg/l	0.050	0.0060	1			8/14/2012 20:43	KB

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## ANALYTICAL RESULTS

Workorder: 6244 MI PLAZA / M01046

Lab ID: 62440005 Date Received: 8/9/2012 08:15 Matrix: Water  
Sample ID: MMW-9S Date Collected: 8/2/2012 08:56

Parameters	Results	Units	RDL	MDL	DF Prepared	By	Analyzed	By	Qual
<b>RISK - MICR</b>									
Analysis Desc: AM20GAX Analytical Method: AM20GAX									
Methane	17000	ug/l	0.10	0.018	1		8/14/2012 09:21	BW	
Ethane	0.82	ug/l	0.025	0.0070	1		8/14/2012 09:21	BW	
Ethene	28	ug/l	0.025	0.0050	1		8/14/2012 09:21	BW	
<b>EDonors - MICR</b>									
Analysis Desc: AM23G Analytical Method: AM23G									
Lactic Acid	0.070J	mg/l	0.10	0.010	1		8/14/2012 21:26	KB	
Acetic Acid	0.036J	mg/l	0.070	0.0060	1		8/14/2012 21:26	KB	
Propionic Acid	0.050 U	mg/l	0.050	0.0070	1		8/14/2012 21:26	KB	
Butyric Acid	0.050 U	mg/l	0.050	0.0040	1		8/14/2012 21:26	KB	
Pyruvic Acid	0.15 U	mg/l	0.15	0.033	1		8/14/2012 21:26	KB	
i-Pentanoic Acid	0.15 U	mg/l	0.15	0.044	1		8/14/2012 21:26	KB	
Pentanoic Acid	0.070 U	mg/l	0.070	0.012	1		8/14/2012 21:26	KB	
i-Hexanoic Acid	0.050 U	mg/l	0.050	0.0060	1		8/14/2012 21:26	KB	
Hexanoic Acid	0.050 U	mg/l	0.050	0.0060	1		8/14/2012 21:26	KB	

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## ANALYTICAL RESULTS

Workorder: 6244 MI PLAZA / M01046

Lab ID: 62440006 Date Received: 8/9/2012 08:15 Matrix: Water  
Sample ID: MMW-10S Date Collected: 8/2/2012 09:35

Parameters	Results	Units	RDL	MDL	DF Prepared	By	Analyzed	By	Qual
<b>RISK - MICR</b>									
Analysis Desc: AM20GAX Analytical Method: AM20GAX									
Methane	7300	ug/l	0.10	0.018	1			8/14/2012 09:31	BW
Ethane	0.11	ug/l	0.025	0.0070	1			8/14/2012 09:31	BW
Ethene	11	ug/l	0.025	0.0050	1			8/14/2012 09:31	BW
<b>EDonors - MICR</b>									
Analysis Desc: AM23G Analytical Method: AM23G									
Lactic Acid	0.10 U	mg/l	0.10	0.010	1			8/14/2012 23:32	KB
Acetic Acid	0.018J	mg/l	0.070	0.0060	1			8/14/2012 23:32	KB
Propionic Acid	0.050 U	mg/l	0.050	0.0070	1			8/14/2012 23:32	KB
Butyric Acid	0.050 U	mg/l	0.060	0.0040	1			8/14/2012 23:32	KB
Pyruvic Acid	0.15 U	mg/l	0.15	0.033	1			8/14/2012 23:32	KB
i-Pentanoic Acid	0.15 U	mg/l	0.15	0.044	1			8/14/2012 23:32	KB
Pentanoic Acid	0.070 U	mg/l	0.070	0.012	1			8/14/2012 23:32	KB
i-Hexanoic Acid	0.050 U	mg/l	0.050	0.0060	1			8/14/2012 23:32	KB
Hexanoic Acid	0.050 U	mg/l	0.050	0.0060	1			8/14/2012 23:32	KB

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## ANALYTICAL RESULTS

Workorder: 6244 MI PLAZA / M01046

Lab ID: 62440007 Date Received: 8/9/2012 08:15 Matrix: Water  
Sample ID: MMW-1S Date Collected: 8/2/2012 10:09

Parameters	Results	Units	RDL	MDL	DF Prepared	By	Analyzed	By	Qual
<b>RISK - MICR</b>									
Analysis Desc: AM20GAX Analytical Method: AM20GAX									
Methane	15000	ug/l	0.10	0.018	1			8/14/2012 09:41	BW
Ethane	0.024J	ug/l	0.025	0.0070	1			8/14/2012 09:41	BW
Ethene	1.9	ug/l	0.025	0.0050	1			8/14/2012 09:41	BW
<b>EDonors - MICR</b>									
Analysis Desc: AM23G Analytical Method: AM23G									
Lactic Acid	0.071J	mg/l	0.10	0.010	1			8/15/2012 00:14	KB
Acetic Acid	0.013J	mg/l	0.070	0.0060	1			8/15/2012 00:14	KB
Propionic Acid	0.050 U	mg/l	0.050	0.0070	1			8/15/2012 00:14	KB
Butyric Acid	0.050 U	mg/l	0.050	0.0040	1			8/15/2012 00:14	KB
Pyruvic Acid	0.15 U	mg/l	0.15	0.033	1			8/15/2012 00:14	KB
i-Pentanoic Acid	0.15 U	mg/l	0.15	0.044	1			8/15/2012 00:14	KB
Pentanoic Acid	0.070 U	mg/l	0.070	0.012	1			8/15/2012 00:14	KB
i-Hexanoic Acid	0.050 U	mg/l	0.050	0.0060	1			8/15/2012 00:14	KB
Hexanoic Acid	0.050 U	mg/l	0.050	0.0060	1			8/15/2012 00:14	KB

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## ANALYTICAL RESULTS

Workorder: 6244 MI PLAZA / M01046

Lab ID: **62440008** Date Received: 8/9/2012 08:15 Matrix: Water  
Sample ID: **MMW-8S** Date Collected: 8/2/2012 10:39

Parameters	Results	Units	RDL	MDL	DF Prepared	By	Analyzed	By	Qual
<b>RISK - MICR</b>									
Analysis Desc: AM20GAX Analytical Method: AM20GAX									
Methane	<b>14000</b>	ug/l	0.10	0.018	1			8/14/2012 09:52	BW
Ethane	<b>0.093</b>	ug/l	0.025	0.0070	1			8/14/2012 09:52	BW
Ethene	<b>19</b>	ug/l	0.025	0.0050	1			8/14/2012 09:52	BW
<b>EDonors - MICR</b>									
Analysis Desc: AM23G Analytical Method: AM23G									
Lactic Acid	<b>0.10</b>	U mg/l	0.10	0.010	1			8/15/2012 00:56	KB
Acetic Acid	<b>0.0075</b>	J mg/l	0.070	0.0060	1			8/15/2012 00:56	KB
Propionic Acid	<b>0.050</b>	U mg/l	0.050	0.0070	1			8/15/2012 00:56	KB
Butyric Acid	<b>0.050</b>	U mg/l	0.050	0.0040	1			8/15/2012 00:56	KB
Pyruvic Acid	<b>0.15</b>	U mg/l	0.15	0.033	1			8/15/2012 00:56	KB
i-Pentanoic Acid	<b>0.15</b>	U mg/l	0.15	0.044	1			8/15/2012 00:56	KB
Pentanoic Acid	<b>0.070</b>	U mg/l	0.070	0.012	1			8/15/2012 00:56	KB
i-Hexanoic Acid	<b>0.050</b>	U mg/l	0.050	0.0060	1			8/15/2012 00:56	KB
Hexanoic Acid	<b>0.050</b>	U mg/l	0.050	0.0060	1			8/15/2012 00:56	KB

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## ANALYTICAL RESULTS

Workorder: 6244 MI PLAZA / M01046

Lab ID: 62440009 Date Received: 8/9/2012 08:15 Matrix: Water  
Sample ID: MMW-P-05 Date Collected: 8/2/2012 11:43

Parameters	Results	Units	RDL	MDL	DF Prepared	By	Analyzed	By	Qual
<b>RISK - MICR</b>									
Analysis Desc: AM20GAX Analytical Method: AM20GAX									
Methane	1800	ug/l	0.10	0.018	1			8/14/2012 10:01	BW
Ethane	0.21	ug/l	0.025	0.0070	1			8/14/2012 10:01	BW
Ethene	15	ug/l	0.025	0.0050	1			8/14/2012 10:01	BW
<b>EDonors - MICR</b>									
Analysis Desc: AM23G Analytical Method: AM23G									
Lactic Acid	0.011J	mg/l	0.10	0.010	1			8/15/2012 01:38	KB
Acetic Acid	0.013J	mg/l	0.070	0.0060	1			8/15/2012 01:38	KB
Propionic Acid	0.050 U	mg/l	0.050	0.0070	1			8/15/2012 01:38	KB
Butyric Acid	0.050 U	mg/l	0.050	0.0040	1			8/15/2012 01:38	KB
Pyruvic Acid	0.15 U	mg/l	0.15	0.033	1			8/15/2012 01:38	KB
i-Pentanoic Acid	0.15 U	mg/l	0.15	0.044	1			8/15/2012 01:38	KB
Pentanoic Acid	0.070 U	mg/l	0.070	0.012	1			8/15/2012 01:38	KB
i-Hexanoic Acid	0.050 U	mg/l	0.050	0.0060	1			8/15/2012 01:38	KB
Hexanoic Acid	0.050 U	mg/l	0.050	0.0060	1			8/15/2012 01:38	KB

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## ANALYTICAL RESULTS

Workorder: 6244 MI PLAZA / M01046

Lab ID: 62440010 Date Received: 8/9/2012 08:15 Matrix: Water  
Sample ID: MMW-P-10S Date Collected: 8/2/2012 12:17

Parameters	Results	Units	RDL	MDL	DF Prepared	By	Analyzed	By	Qual
<b>RISK - MICR</b>									
Analysis Desc: AM20GAX Analytical Method: AM20GAX									
Methane	12000	ug/l	0.10	0.018	1			8/14/2012 10:12	BW
Ethane	4.6	ug/l	0.025	0.0070	1			8/14/2012 10:12	BW
Ethene	75	ug/l	0.025	0.0050	1			8/14/2012 10:12	BW
<b>EDonors - MICR</b>									
Analysis Desc: AM23G Analytical Method: AM23G									
Lactic Acid	0.031J	mg/l	0.10	0.010	1			8/15/2012 02:20	KB
Acetic Acid	0.014J	mg/l	0.070	0.0060	1			8/15/2012 02:20	KB
Propionic Acid	0.050 U	mg/l	0.050	0.0070	1			8/15/2012 02:20	KB
Butyric Acid	0.050 U	mg/l	0.050	0.0040	1			8/15/2012 02:20	KB
Pyruvic Acid	0.15 U	mg/l	0.15	0.033	1			8/15/2012 02:20	KB
i-Pentanoic Acid	0.15 U	mg/l	0.15	0.044	1			8/15/2012 02:20	KB
Pentanoic Acid	0.070 U	mg/l	0.070	0.012	1			8/15/2012 02:20	KB
i-Hexanoic Acid	0.050 U	mg/l	0.050	0.0060	1			8/15/2012 02:20	KB
Hexanoic Acid	0.17	mg/l	0.050	0.0060	1			8/15/2012 02:20	KB

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## ANALYTICAL RESULTS

Workorder: 6244 MI PLAZA / M01046

Lab ID: 62440011 Date Received: 8/9/2012 08:15 Matrix: Water  
Sample ID: MMW-P-10D Date Collected: 8/2/2012 12:55

Parameters	Results	Units	RDL	MDL	DF Prepared	By	Analyzed	By	Qual
<b>RISK - MICR</b>									
Analysis Desc: AM20GAX Analytical Method: AM20GAX									
Methane	20000	ug/l	0.10	0.018	1			8/14/2012 10:22	BW
Ethane	1.3	ug/l	0.025	0.0070	1			8/14/2012 10:22	BW
Ethene	140	ug/l	0.025	0.0050	1			8/14/2012 10:22	BW
<b>EDonors - MICR</b>									
Analysis Desc: AM23G Analytical Method: AM23G									
Lactic Acid	0.10 U	mg/l	0.10	0.010	1			8/15/2012 03:02	KB
Acetic Acid	0.011J	mg/l	0.070	0.0060	1			8/15/2012 03:02	KB
Propionic Acid	0.050 U	mg/l	0.050	0.0070	1			8/15/2012 03:02	KB
Butyric Acid	0.050 U	mg/l	0.050	0.0040	1			8/15/2012 03:02	KB
Pyruvic Acid	0.15 U	mg/l	0.15	0.033	1			8/15/2012 03:02	KB
i-Pentanoic Acid	0.15 U	mg/l	0.15	0.044	1			8/15/2012 03:02	KB
Pentanoic Acid	0.070 U	mg/l	0.070	0.012	1			8/15/2012 03:02	KB
i-Hexanoic Acid	0.050 U	mg/l	0.050	0.0060	1			8/15/2012 03:02	KB
Hexanoic Acid	0.050 U	mg/l	0.050	0.0060	1			8/15/2012 03:02	KB

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## ANALYTICAL RESULTS

Workorder: 6244 MI PLAZA / M01046

Lab ID: 62440012 Date Received: 8/9/2012 08:15 Matrix: Water  
Sample ID: MMW-P-08 Date Collected: 8/2/2012 13:34

Parameters	Results	Units	RDL	MDL	DF Prepared	By	Analyzed	By	Qual
<b>RISK - MICR</b>									
Analysis Desc: AM20GAX Analytical Method: AM20GAX									
Methane	9200	ug/l	0.10	0.018	1		8/14/2012 10:31	BW	
Ethane	4.5	ug/l	0.025	0.0070	1		8/14/2012 10:31	BW	
Ethene	390	ug/l	0.025	0.0050	1		8/14/2012 10:31	BW	
<b>EDonors - MICR</b>									
Analysis Desc: AM23G Analytical Method: AM23G									
Lactic Acid	0.10 U	mg/l	0.10	0.010	1		8/15/2012 03:44	KB	
Acetic Acid	0.034J	mg/l	0.070	0.0060	1		8/15/2012 03:44	KB	
Propionic Acid	0.050 U	mg/l	0.050	0.0070	1		8/15/2012 03:44	KB	
Butyric Acid	0.050 U	mg/l	0.050	0.0040	1		8/15/2012 03:44	KB	
Pyruvic Acid	0.15 U	mg/l	0.15	0.033	1		8/15/2012 03:44	KB	
i-Pentanoic Acid	0.15 U	mg/l	0.15	0.044	1		8/15/2012 03:44	KB	
Pentanoic Acid	0.070 U	mg/l	0.070	0.012	1		8/15/2012 03:44	KB	
i-Hexanoic Acid	0.050 U	mg/l	0.050	0.0060	1		8/15/2012 03:44	KB	
Hexanoic Acid	0.050 U	mg/l	0.050	0.0060	1		8/15/2012 03:44	KB	

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## ANALYTICAL RESULTS

Workorder: 6244 MI PLAZA / M01046

Lab ID: 62440013 Date Received: 8/9/2012 08:15 Matrix: Water  
Sample ID: MMW-P-07 Date Collected: 8/2/2012 14:04

Parameters	Results	Units	RDL	MDL	DF Prepared	By	Analyzed	By	Qual
<b>RISK - MICR</b>									
Analysis Desc: AM20GAX Analytical Method: AM20GAX									
Methane	16000	ug/l	0.10	0.018	1			8/14/2012 11:21	BW
Ethane	0.46	ug/l	0.025	0.0070	1			8/14/2012 11:21	BW
Ethene	95	ug/l	0.025	0.0050	1			8/14/2012 11:21	BW
<b>EDonors - MICR</b>									
Analysis Desc: AM23G Analytical Method: AM23G									
Lactic Acid	0.037J	mg/l	0.10	0.010	1			8/15/2012 04:27	KB
Acetic Acid	0.033J	mg/l	0.070	0.0060	1			8/15/2012 04:27	KB
Propionic Acid	0.050 U	mg/l	0.050	0.0070	1			8/15/2012 04:27	KB
Butyric Acid	0.050 U	mg/l	0.050	0.0040	1			8/15/2012 04:27	KB
Pyruvic Acid	0.15 U	mg/l	0.15	0.033	1			8/15/2012 04:27	KB
i-Pentanoic Acid	0.15 U	mg/l	0.15	0.044	1			8/15/2012 04:27	KB
Pentanoic Acid	0.070 U	mg/l	0.070	0.012	1			8/15/2012 04:27	KB
i-Hexanoic Acid	0.050 U	mg/l	0.050	0.0060	1			8/15/2012 04:27	KB
Hexanoic Acid	0.050 U	mg/l	0.050	0.0060	1			8/15/2012 04:27	KB

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## ANALYTICAL RESULTS

Workorder: 6244 MI PLAZA / M01046

Lab ID: 62440014 Date Received: 8/9/2012 08:15 Matrix: Water  
Sample ID: MMW-P-01 Date Collected: 8/2/2012 14:35

Parameters	Results	Units	RDL	MDL	DF Prepared	By	Analyzed	By	Qual
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### RISK - MICR

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	15000	ug/l	0.10	0.018	1		8/14/2012 11:36	BW
Ethane	0.63	ug/l	0.025	0.0070	1		8/14/2012 11:36	BW
Ethene	1500	ug/l	0.025	0.0050	1		8/14/2012 11:36	BW

### EDonors - MICR

Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	0.097J	mg/l	0.10	0.010	1		8/15/2012 05:09	KB
Acetic Acid	0.022J	mg/l	0.070	0.0060	1		8/15/2012 05:09	KB
Propionic Acid	0.050 U	mg/l	0.050	0.0070	1		8/15/2012 05:09	KB
Butyric Acid	0.050 U	mg/l	0.050	0.0040	1		8/15/2012 05:09	KB
Pyruvic Acid	0.15 U	mg/l	0.15	0.033	1		8/15/2012 05:09	KB
i-Pentanoic Acid	0.15 U	mg/l	0.15	0.044	1		8/15/2012 05:09	KB
Pentanoic Acid	0.070 U	mg/l	0.070	0.012	1		8/15/2012 05:09	KB
i-Hexanoic Acid	0.050 U	mg/l	0.050	0.0060	1		8/15/2012 05:09	KB
Hexanoic Acid	0.050 U	mg/l	0.050	0.0060	1		8/15/2012 05:09	KB

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## ANALYTICAL RESULTS

Workorder: 6244 MI PLAZA / M01046

Lab ID: 62440015 Date Received: 8/9/2012 08:15 Matrix: Water  
Sample ID: MMW-P-06 Date Collected: 8/2/2012 15:06

Parameters	Results	Units	RDL	MDL	DF Prepared	By	Analyzed	By	Qual
<b>RISK - MICR</b>									
Analysis Desc: AM20GAX Analytical Method: AM20GAX									
Methane	15000	ug/l	0.10	0.018	1			8/14/2012 11:46	BW
Ethane	0.92	ug/l	0.025	0.0070	1			8/14/2012 11:46	BW
Ethene	1100	ug/l	0.025	0.0050	1			8/14/2012 11:46	BW
<b>EDonors - MICR</b>									
Analysis Desc: AM23G Analytical Method: AM23G									
Lactic Acid	0.10 U	mg/l	0.10	0.010	1			8/15/2012 05:51	KB
Acetic Acid	0.069J	mg/l	0.070	0.0060	1			8/15/2012 05:51	KB
Propionic Acid	0.050 U	mg/l	0.050	0.0070	1			8/15/2012 05:51	KB
Butyric Acid	0.050 U	mg/l	0.050	0.0040	1			8/15/2012 05:51	KB
Pyruvic Acid	0.15 U	mg/l	0.15	0.033	1			8/15/2012 05:51	KB
i-Pentanoic Acid	0.15 U	mg/l	0.15	0.044	1			8/15/2012 05:51	KB
Pentanoic Acid	0.070 U	mg/l	0.070	0.012	1			8/15/2012 05:51	KB
i-Hexanoic Acid	0.050 U	mg/l	0.050	0.0060	1			8/15/2012 05:51	KB
Hexanoic Acid	0.050 U	mg/l	0.050	0.0060	1			8/15/2012 05:51	KB

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## ANALYTICAL RESULTS

Workorder: 6244 MI PLAZA / M01046

Lab ID: 62440016 Date Received: 8/9/2012 08:15 Matrix: Water  
Sample ID: MMW-P-12S Date Collected: 8/7/2012 09:33

Parameters	Results	Units	RDL	MDL	DF Prepared	By	Analyzed	By	Qual
<b>RISK - MICR</b>									
Analysis Desc: AM20GAX Analytical Method: AM20GAX									
Methane	17	ug/l	0.10	0.018	1			8/14/2012 11:56	BW
Ethane	0.85	ug/l	0.025	0.0070	1			8/14/2012 11:56	BW
Ethene	0.32	ug/l	0.025	0.0050	1			8/14/2012 11:56	BW
<b>EDonors - MICR</b>									
Analysis Desc: AM23G Analytical Method: AM23G									
Lactic Acid	0.040J	mg/l	0.10	0.010	1			8/15/2012 06:33	KB
Acetic Acid	0.019J	mg/l	0.070	0.0060	1			8/15/2012 06:33	KB
Propionic Acid	0.050 U	mg/l	0.050	0.0070	1			8/15/2012 06:33	KB
Butyric Acid	0.050 U	mg/l	0.050	0.0040	1			8/15/2012 06:33	KB
Pyruvic Acid	0.15 U	mg/l	0.15	0.033	1			8/15/2012 06:33	KB
i-Pentanoic Acid	0.15 U	mg/l	0.15	0.044	1			8/15/2012 06:33	KB
Pentanoic Acid	0.070 U	mg/l	0.070	0.012	1			8/15/2012 06:33	KB
i-Hexanoic Acid	0.050 U	mg/l	0.050	0.0060	1			8/15/2012 06:33	KB
Hexanoic Acid	0.050 U	mg/l	0.050	0.0060	1			8/15/2012 06:33	KB

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## ANALYTICAL RESULTS

Workorder: 6244 MI PLAZA / M01046

Lab ID: 62440017 Date Received: 8/9/2012 08:15 Matrix: Water  
Sample ID: MMW-P-12D Date Collected: 8/7/2012 10:38

Parameters	Results	Units	RDL	MDL	DF Prepared	By	Analyzed	By	Qual
<b>RISK - MICR</b>									
Analysis Desc: AM20GAX Analytical Method: AM20GAX									
Methane	19	ug/l	0.10	0.018	1			8/14/2012 12:07	BW
Ethane	1.1	ug/l	0.025	0.0070	1			8/14/2012 12:07	BW
Ethene	0.40	ug/l	0.025	0.0050	1			8/14/2012 12:07	BW
<b>EDonors - MICR</b>									
Analysis Desc: AM23G Analytical Method: AM23G									
Lactic Acid	0.10	U mg/l	0.10	0.010	1			8/15/2012 07:15	KB
Acetic Acid	0.017J	mg/l	0.070	0.0060	1			8/15/2012 07:15	KB
Propionic Acid	0.050 U	mg/l	0.050	0.0070	1			8/15/2012 07:15	KB
Butyric Acid	0.050 U	mg/l	0.050	0.0040	1			8/15/2012 07:15	KB
Pyruvic Acid	0.15	U mg/l	0.15	0.033	1			8/15/2012 07:15	KB
i-Pentanoic Acid	0.15	U mg/l	0.15	0.044	1			8/15/2012 07:15	KB
Pentanoic Acid	0.070	U mg/l	0.070	0.012	1			8/15/2012 07:15	KB
i-Hexanoic Acid	0.050	U mg/l	0.050	0.0060	1			8/15/2012 07:15	KB
Hexanoic Acid	0.050	U mg/l	0.050	0.0060	1			8/15/2012 07:15	KB

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## ANALYTICAL RESULTS

Workorder: 6244 MI PLAZA / M01046

Lab ID: **62440018** Date Received: 8/9/2012 08:15 Matrix: Water  
Sample ID: **MMW-P-11S** Date Collected: 8/7/2012 12:05

Parameters	Results	Units	RDL	MDL	DF Prepared	By	Analyzed	By	Qual
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### RISK - MICR

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	<b>960</b>	ug/l	0.10	0.018	1		8/14/2012 12:24	BW
Ethane	<b>0.22</b>	ug/l	0.025	0.0070	1		8/14/2012 12:24	BW
Ethene	<b>5.6</b>	ug/l	0.025	0.0050	1		8/14/2012 12:24	BW

### EDonors - MICR

Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	<b>0.10</b> U	mg/l	0.10	0.010	1		8/15/2012 07:57	KB
Acetic Acid	<b>0.017J</b>	mg/l	0.070	0.0060	1		8/15/2012 07:57	KB
Propionic Acid	<b>0.050</b> U	mg/l	0.050	0.0070	1		8/15/2012 07:57	KB
Butyric Acid	<b>0.050</b> U	mg/l	0.050	0.0040	1		8/15/2012 07:57	KB
Pyruvic Acid	<b>0.15</b> U	mg/l	0.15	0.033	1		8/15/2012 07:57	KB
i-Pentanoic Acid	<b>0.15</b> U	mg/l	0.15	0.044	1		8/15/2012 07:57	KB
Pentanoic Acid	<b>0.070</b> U	mg/l	0.070	0.012	1		8/15/2012 07:57	KB
i-Hexanoic Acid	<b>0.050</b> U	mg/l	0.050	0.0060	1		8/15/2012 07:57	KB
Hexanoic Acid	<b>0.050</b> U	mg/l	0.050	0.0060	1		8/15/2012 07:57	KB

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## ANALYTICAL RESULTS

Workorder: 6244 MI PLAZA / M01046

Lab ID: 62440019 Date Received: 8/9/2012 08:15 Matrix: Water  
Sample ID: MMW-P-11D Date Collected: 8/7/2012 12:50

Parameters	Results	Units	RDL	MDL	DF Prepared	By	Analyzed	By	Qual
<b>RISK - MICR</b>									
Analysis Desc: AM20GAX Analytical Method: AM20GAX									
Methane	590	ug/l	0.10	0.018	1			8/14/2012 13:38	BW
Ethane	1.3	ug/l	0.025	0.0070	1			8/14/2012 13:38	BW
Ethene	7.7	ug/l	0.025	0.0050	1			8/14/2012 13:38	BW
<b>EDonors - MICR</b>									
Analysis Desc: AM23G Analytical Method: AM23G									
Lactic Acid	0.042J	mg/l	0.10	0.010	1			8/15/2012 08:39	KB
Acetic Acid	0.034J	mg/l	0.070	0.0060	1			8/15/2012 08:39	KB
Propionic Acid	0.050 U	mg/l	0.050	0.0070	1			8/15/2012 08:39	KB
Butyric Acid	0.050 U	mg/l	0.050	0.0040	1			8/15/2012 08:39	KB
Pyruvic Acid	0.15 U	mg/l	0.15	0.033	1			8/15/2012 08:39	KB
i-Pentanoic Acid	0.15 U	mg/l	0.15	0.044	1			8/15/2012 08:39	KB
Pentanoic Acid	0.070 U	mg/l	0.070	0.012	1			8/15/2012 08:39	KB
i-Hexanoic Acid	0.050 U	mg/l	0.050	0.0060	1			8/15/2012 08:39	KB
Hexanoic Acid	0.050 U	mg/l	0.050	0.0060	1			8/15/2012 08:39	KB

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## ANALYTICAL RESULTS

Workorder: 6244 MI PLAZA / M01046

Lab ID: 62440020 Date Received: 8/9/2012 08:15 Matrix: Water  
Sample ID: MMW-9S MS Date Collected: 8/2/2012 08:56

Parameters	Results	Units	RDL	MDL	DF Prepared	By	Analyzed	By	Qual
<b>RISK - MICR</b>									
Analysis Desc: AM20GAX Analytical Method: AM20GAX									
Methane	18000	ug/l	0.10	0.018	1			8/14/2012 12:34	BW
Ethane	39	ug/l	0.025	0.0070	1			8/14/2012 12:34	BW
Ethene	66	ug/l	0.025	0.0050	1			8/14/2012 12:34	BW
<b>EDonors - MICR</b>									
Analysis Desc: AM23G Analytical Method: AM23G									
Lactic Acid	2.1	mg/l	0.10	0.010	1			8/14/2012 22:08	KB
Acetic Acid	2.1	mg/l	0.070	0.0060	1			8/14/2012 22:08	KB
Propionic Acid	2.1	mg/l	0.050	0.0070	1			8/14/2012 22:08	KB
Butyric Acid	2.1	mg/l	0.050	0.0040	1			8/14/2012 22:08	KB
Pyruvic Acid	2.0	mg/l	0.15	0.033	1			8/14/2012 22:08	KB
i-Pentanoic Acid	2.0	mg/l	0.15	0.044	1			8/14/2012 22:08	KB
Pentanoic Acid	2.0	mg/l	0.070	0.012	1			8/14/2012 22:08	KB
i-Hexanoic Acid	1.9	mg/l	0.050	0.0060	1			8/14/2012 22:08	KB
Hexanoic Acid	1.8	mg/l	0.050	0.0060	1			8/14/2012 22:08	KB

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## ANALYTICAL RESULTS

Workorder: 6244 MI PLAZA / M01046

Lab ID: 62440021 Date Received: 8/9/2012 08:15 Matrix: Water  
Sample ID: MMW-9S MSD Date Collected: 8/2/2012 08:56

Parameters	Results	Units	RDL	MDL	DF Prepared	By	Analyzed	By	Qual
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### RISK - MICR

Analysis Desc: AM20GAX Analytical Method: AM20GAX

Methane	19000	ug/l	0.10	0.018	1	8/14/2012 12:43	BW
Ethane	38	ug/l	0.025	0.0070	1	8/14/2012 12:43	BW
Ethene	67	ug/l	0.025	0.0050	1	8/14/2012 12:43	BW

### EDonors - MICR

Analysis Desc: AM23G Analytical Method: AM23G

Lactic Acid	2.0	mg/l	0.10	0.010	1	8/14/2012 22:50	KB
Acetic Acid	2.0	mg/l	0.070	0.0060	1	8/14/2012 22:50	KB
Propionic Acid	2.0	mg/l	0.050	0.0070	1	8/14/2012 22:50	KB
Butyric Acid	2.0	mg/l	0.050	0.0040	1	8/14/2012 22:50	KB
Pyruvic Acid	2.0	mg/l	0.15	0.033	1	8/14/2012 22:50	KB
i-Pentanoic Acid	2.0	mg/l	0.15	0.044	1	8/14/2012 22:50	KB
Pentanoic Acid	2.0	mg/l	0.070	0.012	1	8/14/2012 22:50	KB
i-Hexanoic Acid	2.0	mg/l	0.050	0.0060	1	8/14/2012 22:50	KB
Hexanoic Acid	2.3	mg/l	0.050	0.0060	1	8/14/2012 22:50	KB

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## ANALYTICAL RESULTS

Workorder: 6244 MI PLAZA / M01046

Lab ID: 62440022 Date Received: 8/9/2012 08:15 Matrix: Water  
Sample ID: DUP2 Date Collected: 8/2/2012 12:17

Parameters	Results	Units	RDL	MDL	DF Prepared	By	Analyzed	By	Qual
<b>RISK - MICR</b>									
Analysis Desc: AM20GAX Analytical Method: AM20GAX									
Methane	13000	ug/l	0.10	0.018	1			8/14/2012 13:48	BW
Ethane	4.8	ug/l	0.025	0.0070	1			8/14/2012 13:48	BW
Ethene	76	ug/l	0.025	0.0050	1			8/14/2012 13:48	BW
<b>EDonors - MICR</b>									
Analysis Desc: AM23G Analytical Method: AM23G									
Lactic Acid	0.10 U	mg/l	0.10	0.010	1			8/15/2012 09:21	KB
Acetic Acid	0.019J	mg/l	0.070	0.0060	1			8/15/2012 09:21	KB
Propionic Acid	0.050 U	mg/l	0.050	0.0070	1			8/15/2012 09:21	KB
Butyric Acid	0.050 U	mg/l	0.050	0.0040	1			8/15/2012 09:21	KB
Pyruvic Acid	0.15 U	mg/l	0.15	0.033	1			8/15/2012 09:21	KB
i-Pentanoic Acid	0.15 U	mg/l	0.15	0.044	1			8/15/2012 09:21	KB
Pentanoic Acid	0.070 U	mg/l	0.070	0.012	1			8/15/2012 09:21	KB
i-Hexanoic Acid	0.050 U	mg/l	0.050	0.0060	1			8/15/2012 09:21	KB
Hexanoic Acid	0.050 U	mg/l	0.050	0.0060	1			8/15/2012 09:21	KB

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## ANALYTICAL RESULTS QUALIFIERS

Workorder: 6244 MI PLAZA / M01046

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### PARAMETER QUALIFIERS

- U      Indicates the compound was analyzed for, but not detected.
- J      Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (RDL).

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## QUALITY CONTROL DATA

Workorder: 6244 MI PLAZA / M01046

QC Batch: DISG/2362 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 62440001, 62440002, 62440003, 62440004, 62440005, 62440006, 62440007, 62440008, 62440009, 62440010,

METHOD BLANK: 13700

Parameter	Units	Blank Result	Reporting Limit Qualifiers		
			LCS	LCSD	LCSD
<b>RISK</b>					
Methane	ug/l	0.10 U	0.10		
Ethane	ug/l	0.025 U	0.025		
Ethene	ug/l	0.025 U	0.025		

LABORATORY CONTROL SAMPLE & LCSD: 13701 13702

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD Qualifiers
					% Rec	RPD	Qualifiers		
<b>RISK</b>									
Methane	ug/l	820	720	750	87	91	80-120	4.5	20
Ethane	ug/l	42	40	42	97	100	80-120	3	20
Ethene	ug/l	39	38	40	98	102	80-120	4	20

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 13710 13711 Original: 62440005

Parameter	Units	Original Result	Spike Conc.	MS Result	MS Result	MS % Rec	MS % Rec	% Rec Limit	Max RPD	Max RPD Qualifiers
		% Rec	RPD	Qualifiers						
<b>RISK</b>										
Methane	ug/l	17000	820	18000	19000	165	270	70-130	48	20
Ethane	ug/l	0.82	42	39	38	91	89	70-130	2.2	20
Ethene	ug/l	28	39	66	67	98	101	70-130	3	20

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## QUALITY CONTROL DATA

Workorder: 6244 MI PLAZA / M01046

QC Batch: DISG/2363      Analysis Method: AM20GAX  
QC Batch Method: AM20GAX  
Associated Lab Samples: 62440019, 62440022

METHOD BLANK: 13703

Parameter	Units	Blank Result	Reporting	
			Limit	Qualifiers
<b>RISK</b>				
Methane	ug/l	0.10 U	0.10	
Ethane	ug/l	0.025 U	0.025	
Ethene	ug/l	0.025 U	0.025	

LABORATORY CONTROL SAMPLE & LCSD: 13704      13705

Parameter	Units	Spike Conc.	LCS Result	LCSD	LCS	LCSD	% Rec	RPD	Max RPD Qualifiers
				Result	% Rec	% Rec	Limit		
<b>RISK</b>									
Methane	ug/l	820	720	760	88	93	80-120	5.5	20
Ethane	ug/l	42	41	43	99	104	80-120	4.9	20
Ethene	ug/l	39	39	41	100	105	80-120	4.9	20

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 13712      13713      Original: 62660001

Parameter	Units	Original	Spike	MS	MSD	MS	MSD	% Rec	RPD	Max RPD Qualifiers
		Result	Conc.	Result	Result	% Rec	% Rec	Limit		
<b>RISK</b>										
Methane	ug/l	80	820	820	780	89	86	70-130	3.4	20
Ethane	ug/l	35	42	82	84	113	117	70-130	3.5	20
Ethene	ug/l	4.8	39	44	42	102	97	70-130	5	20

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## QUALITY CONTROL DATA

Workorder: 6244 MI PLAZA / M01046

QC Batch: EDON/1501 Analysis Method: AM23G

QC Batch Method: AM23G

Associated Lab Samples: 62440001, 62440002, 62440003, 62440004, 62440005, 62440006, 62440007, 62440008, 62440009, 62440010,

METHOD BLANK: 13762

Parameter	Units	Blank Result	Reporting	
			Limit	Qualifiers
<b>EDonors</b>				
Lactic Acid	mg/l	0.10 U	0.10	
Acetic Acid	mg/l	0.070 U	0.070	
Propionic Acid	mg/l	0.050 U	0.050	
Butyric Acid	mg/l	0.050 U	0.050	
Pyruvic Acid	mg/l	0.15 U	0.15	
i-Pentanoic Acid	mg/l	0.15 U	0.15	
Pentanoic Acid	mg/l	0.070 U	0.070	
i-Hexanoic Acid	mg/l	0.050 U	0.050	
Hexanoic Acid	mg/l	0.050 U	0.050	

LABORATORY CONTROL SAMPLE: 13763

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec	
					Limits	Qualifiers
<b>EDonors</b>						
Lactic Acid	mg/l	2	2.0	102	70-130	
Acetic Acid	mg/l	2	2.0	102	70-130	
Propionic Acid	mg/l	2	2.0	102	70-130	
Butyric Acid	mg/l	2	2.0	100	70-130	
Pyruvic Acid	mg/l	2	2.1	104	70-130	
i-Pentanoic Acid	mg/l	2	1.9	97	70-130	
Pentanoic Acid	mg/l	2	1.9	96	70-130	
i-Hexanoic Acid	mg/l	2	1.8	93	70-130	
Hexanoic Acid	mg/l	2	1.9	97	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 13764 13765 Original: 62440005

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec			Max	
								Limit	RPD	RPD Qualifiers	RPD	Qualifiers
<b>EDonors</b>												
Lactic Acid	mg/l	0.07	2	2.1	2.0	102	97	70-130	5	30		
Acetic Acid	mg/l	0.036	2	2.1	2.0	105	98	70-130	6.9	30		
Propionic Acid	mg/l	0	2	2.1	2.0	106	98	70-130	7.8	30		

Report ID: 6244 - 267782

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## QUALITY CONTROL DATA

Workorder: 6244 MI PLAZA / M01046

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 13764                    13765                    Original: 62440005

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Butyric Acid	mg/l	0	2	2.1	2.0	103	102	70-130	0.98	30	
Pyruvic Acid	mg/l	0	2	2.0	2.0	102	101	70-130	0.99	30	
i-Pentanoic Acid	mg/l	0	2	2.0	2.0	101	99	70-130	2	30	
Pentanoic Acid	mg/l	0	2	2.0	2.0	100	100	70-130	0	30	
i-Hexanoic Acid	mg/l	0	2	1.9	2.0	97	101	70-130	4	30	
Hexanoic Acid	mg/l	0	2	1.8	2.3	91	114	70-130	22	30	

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220 William Pitt Way  
Pittsburgh, PA 15238  
Phone: (412) 826-5245  
Fax: (412) 826-3433

## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 6244 MI PLAZA / M01046

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
62440001	MMW-P-02			AM20GAX	DISG/2362
62440002	MMW-P-03D			AM20GAX	DISG/2362
62440003	MMW-P-03S			AM20GAX	DISG/2362
62440004	MMW-C-01			AM20GAX	DISG/2362
62440005	MMW-9S			AM20GAX	DISG/2362
62440006	MMW-10S			AM20GAX	DISG/2362
62440007	MMW-1S			AM20GAX	DISG/2362
62440008	MMW-8S			AM20GAX	DISG/2362
62440009	MMW-P-05			AM20GAX	DISG/2362
62440010	MMW-P-10S			AM20GAX	DISG/2362
62440011	MMW-P-10D			AM20GAX	DISG/2362
62440012	MMW-P-08			AM20GAX	DISG/2362
62440013	MMW-P-07			AM20GAX	DISG/2362
62440014	MMW-P-01			AM20GAX	DISG/2362
62440015	MMW-P-06			AM20GAX	DISG/2362
62440016	MMW-P-12S			AM20GAX	DISG/2362
62440017	MMW-P-12D			AM20GAX	DISG/2362
62440018	MMW-P-11S			AM20GAX	DISG/2362
62440020	MMW-9S MS			AM20GAX	DISG/2362
62440021	MMW-9S MSD			AM20GAX	DISG/2362
62440019	MMW-P-11D			AM20GAX	DISG/2363
62440022	DUP2			AM20GAX	DISG/2363
62440001	MMW-P-02			AM23G	EDON/1501
62440002	MMW-P-03D			AM23G	EDON/1501
62440003	MMW-P-03S			AM23G	EDON/1501
62440004	MMW-C-01			AM23G	EDON/1501
62440005	MMW-9S			AM23G	EDON/1501
62440006	MMW-10S			AM23G	EDON/1501
62440007	MMW-1S			AM23G	EDON/1501
62440008	MMW-8S			AM23G	EDON/1501
62440009	MMW-P-05			AM23G	EDON/1501
62440010	MMW-P-10S			AM23G	EDON/1501

Report ID: 6244 - 267782

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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 6244 MI PLAZA / M01046

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
62440011	MMW-P-10D			AM23G	EDON/1501
62440012	MMW-P-08			AM23G	EDON/1501
62440013	MMW-P-07			AM23G	EDON/1501
62440014	MMW-P-01			AM23G	EDON/1501
62440015	MMW-P-06			AM23G	EDON/1501
62440016	MMW-P-12S			AM23G	EDON/1501
62440017	MMW-P-12D			AM23G	EDON/1501
62440018	MMW-P-11S			AM23G	EDON/1501
62440019	MMW-P-11D			AM23G	EDON/1501
62440020	MMW-9S MS			AM23G	EDON/1501
62440021	MMW-9S MSD			AM23G	EDON/1501
62440022	DUP2			AM23G	EDON/1501

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Microseeps  
Lab. Proj. #

6244

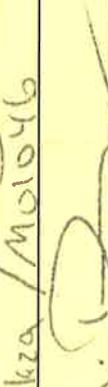
**CHAIN - OF - CUSTODY RECORD**

Microseeps  
COC cont. #

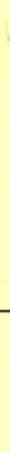
Phone: (412) 826-5245

Microseens Inc - 220 William Pitt Way - Pittsburgh PA 15238

Fax No.: (412) 826-3433

Company :	Murdell & Associates
Co. Address :	110 S. Downey Ave Suite T
Phone # :	317-630-9010 Fax # :
Proj. Manager :	Mark Breeding
Proj. Name/Number :	Alpha Motorcycles
Sampler's signature :	
Cooler Temp :	45.89

Sample ID	Sample Description	Sample Type		Date	Time	# Log	Remarks:
		Water	Vapor				
MNW-P-02	water	✓		8/11/2	9:53 A	4	X X
MNW-P-03D					10:53 A	4	X X
MNW-P-03S					11:37 A	4	X X
MNW-P-C-01		✓			2:29 P	21	X X
MNW-95				8/12/2	8:35 A	4	X X
MNW-105					9:35 A	4	X X
MNW-15					10:09 A	4	X X
MNW-85					10:39 A	4	X X
MNW-P-05					11:13 A	4	X X
MNW-P-105					12:17 P	4	X X
MNW-P-10D					12:55 P	4	X X
MNW-P-08					1:24 P	4	X X

<b>Relinquished by :</b>	Company :	Date :	Time :	Received by :	Company :	Date :	Time :
		8/18/17	1:45P			8-18-17	0815
<b>Relinquished by :</b>	Company :	Date :	Time :	Received by :	Company :	Date :	Time :
							
<b>Relinquished by :</b>	Company :	Date :	Time :	Received by :	Company :	Date :	Time :



NON-CONFORMANCE FORM

Microseeps Project Number: 6244

Date: 8-9-12 Time of Receipt: 08:15 Receiver: Holan Young

Client: Mundell.

REASON FOR NON-CONFORMANCE:

1. Sample No. 19: COC ID was MMW-P-11D  
Labels ID MMW-P-11DR
2. Did not receive TRIP BLANK as noted on COC.

ACTION TAKEN:

Client name: Mark Bretting Date: 8/9/12 Time: Email

Emailed client

Ok to proceed.

Customer Service Initials: JS

Date: 8/9/12

# Cooler Receipt Form

Client Name: Mundells Assoc Project: MI Plaza / Lab Work Order: 6244  
MO1046

## A. Shipping/Container Information (circle appropriate response)

Courier:  FedEx  UPS  USPS Client Other: \_\_\_\_\_ Air bill Present:  Yes  No

Tracking Number: 798711908640

Custody Seal on Cooler/Box Present:  Yes  No Seals Intact:  Yes  No

Cooler/Box Packing Material:  Bubble Wrap  Absorbent  Foam Other: \_\_\_\_\_

Type of Ice:  Wet  Blue  None Ice Intact:  Yes  Melted

Cooler Temperature: 4.2°C Radiation Screened: Yes  No Chain of Custody Present:  Yes  No

Comments: \_\_\_\_\_

## B. Laboratory Assignment/Log-in (check appropriate response)

	YES	NO	N/A	Comment Reference non-Conformance
Chain of Custody properly filled out	✓			
Chain of Custody relinquished	✓			
Sampler Name & Signature on COC	✓			
Containers intact	✓			
Were samples in separate bags	✓			
Sample container labels match COC		✓		
Sample name/date and time collected				
Sufficient volume provided	✓			
Microseeps containers used	✓			
Are containers properly preserved for the requested testing? (as labeled)	✓			
If an unknown preservation state, were containers checked? Exception: VOA's coliform			✓	
Was volume for dissolved testing field filtered, as noted on the COC? Was volume received in a preserved container?			✓	

Comments: \_\_\_\_\_

Cooler contents examined/received by: HLY Date: 8-9-12

Project Manager Review: RJM Date: 8-13-12



Microseeps, Inc  
220 William Pitt Way  
Pittsburgh, PA 15238  
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October 15, 2012

Merle Tebbe  
Mundell & Associates, Inc.  
110 South Downey Ave.  
Indianapolis, IN 46219

RE: MI PLAZA / M01046

Microseeps Workorder: 6744

Dear Merle Tebbe:

Enclosed are the analytical results for sample(s) received by the laboratory on Thursday, September 27, 2012. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

*Julianne C. Sproull* *DGR 10-15-12*

Julianne Sproull 10/15/2012  
jsproull@microseeps.com

Customer Service Representative

Enclosures

As a valued client we would appreciate your comments on our service.

Please email [info@microseeps.com](mailto:info@microseeps.com).

Total Number of Pages 15

Report ID: 6744 - 292310

Page 1 of 14

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## LABORATORY ACCREDITATIONS & CERTIFICATIONS

<b>Accreditor:</b>	Pennsylvania Department of Environmental Protection, Bureau of Laboratories	
<b>Accreditation ID:</b>	02-00538	
<b>Scope:</b>	NELAP Non-Potable Water and Solid & Hazardous Waste	
<b>Accreditor:</b>	NELAP: State of Florida, Department of Health, Bureau of Laboratories	
<b>Accreditation ID:</b>	E87832	
<b>Scope:</b>	Clean Water Act (CWA)	Resource Conservation and Recovery Act (RCRA)
<b>Accreditor:</b>	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification	
<b>Accreditation ID:</b>	89009003	
<b>Scope:</b>	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)	
<b>Accreditor:</b>	NELAP: State of Louisiana, Department of Environmental Quality	
<b>Accreditation ID:</b>	04104	
<b>Scope:</b>	Solid and Chemical Materials; Non-Potable Water	
<b>Accreditor:</b>	NELAP: New Jersey, Department of Environmental Protection	
<b>Accreditation ID:</b>	PA026	
<b>Scope:</b>	Non-Potable Water; Solid and Chemical Materials	
<b>Accreditor:</b>	NELAP: New York, Department of Health Wadsworth Center	
<b>Accreditation ID:</b>	11815	
<b>Scope:</b>	Non-Potable Water; Solid and Hazardous Waste	
<b>Accreditor:</b>	State of Connecticut, Department of Public Health, Division of Environmental Health	
<b>Accreditation ID:</b>	PH-0263	
<b>Scope:</b>	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)	
<b>Accreditor:</b>	NELAP: Texas, Commission on Environmental Quality	
<b>Accreditation ID:</b>	T104704453-09-TX	
<b>Scope:</b>	Non-Potable Water	
<b>Accreditor:</b>	State of New Hampshire	
<b>Accreditation ID:</b>	299409	
<b>Scope:</b>	Non-potable water	
<b>Accreditor:</b>	State of Georgia	
<b>Accreditation ID:</b>	Chapter 391-3-26	
<b>Scope:</b>	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, Microseeps is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).	

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## SAMPLE SUMMARY

Workorder: 6744 MI PLAZA / M01046

Lab ID	Sample ID	Matrix	Date Collected	Date Received
67440001	B-1	Vapor	9/25/2012 11:30	9/27/2012 13:00
67440002	B-2	Vapor	9/25/2012 11:35	9/27/2012 13:00
67440003	B-3	Vapor	9/25/2012 11:48	9/27/2012 13:00
67440004	B-4	Vapor	9/25/2012 11:58	9/27/2012 13:00
67440005	B-5	Vapor	9/25/2012 12:15	9/27/2012 13:00
67440006	B-6	Vapor	9/25/2012 12:25	9/27/2012 13:00
67440007	B-7	Vapor	9/25/2012 12:38	9/27/2012 13:00

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## ANALYTICAL RESULTS

Workorder: 6744 MI PLAZA / M01046

Lab ID: **67440001** Date Received: 9/27/2012 13:00 Matrix: Vapor  
Sample ID: **B-1** Date Collected: 9/25/2012 11:30

Parameters	Results	Units	PQL	MDL	DF Prepared	By	Analyzed	By	Qual
------------	---------	-------	-----	-----	-------------	----	----------	----	------

### RISK - MICR

Analysis Desc: AM4.02 Vapors		Analytical Method: AM4.02 Vapors						
Vinyl Chloride	<b>1.0 U</b>	ppmv	1.0	0.095	1		10/3/2012 21:40	SL
1,1-Dichloroethene	<b>0.010 U</b>	ppmv	0.010	0.0010	1		10/3/2012 21:40	SL
Methylene Chloride	<b>2.0 U</b>	ppmv	2.0	0.19	1		10/3/2012 21:40	SL
trans-1,2-Dichloroethene	<b>0.010 U</b>	ppmv	0.010	0.0080	1		10/3/2012 21:40	SL
1,1-Dichloroethane	<b>0.020 U</b>	ppmv	0.020	0.0040	1		10/3/2012 21:40	SL
cis-1,2-Dichloroethene	<b>0.020 U</b>	ppmv	0.020	0.0070	1		10/3/2012 21:40	SL
Chloroform	<b>0.0040J</b>	ppmv	0.0050	0.0010	1		10/3/2012 21:40	SL
1,1,1-Trichloroethane	<b>0.0050 U</b>	ppmv	0.0050	0.0010	1		10/3/2012 21:40	SL
Carbon Tetrachloride	<b>0.0050 U</b>	ppmv	0.0050	0.0010	1		10/3/2012 21:40	SL
Trichloroethene	<b>0.0013J</b>	ppmv	0.010	0.0010	1		10/3/2012 21:40	SL
Tetrachloroethene	<b>0.10</b>	ppmv	0.010	0.0010	1		10/3/2012 21:40	SL

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## ANALYTICAL RESULTS

Workorder: 6744 MI PLAZA / M01046

Lab ID: **67440002** Date Received: 9/27/2012 13:00 Matrix: Vapor  
Sample ID: **B-2** Date Collected: 9/25/2012 11:35

Parameters	Results	Units	PQL	MDL	DF Prepared	By	Analyzed	By	Qual
------------	---------	-------	-----	-----	-------------	----	----------	----	------

### RISK - MICR

Analysis Desc: AM4.02 Vapors	Analytical Method: AM4.02 Vapors							
Vinyl Chloride	<b>1.0</b>	U ppmv	1.0	0.095	1		10/3/2012 22:48	SL
1,1-Dichloroethene	<b>0.010</b>	U ppmv	0.010	0.0010	1		10/3/2012 22:48	SL
Methylene Chloride	<b>2.0</b>	U ppmv	2.0	0.19	1		10/3/2012 22:48	SL
trans-1,2-Dichloroethene	<b>0.010</b>	U ppmv	0.010	0.0080	1		10/3/2012 22:48	SL
1,1-Dichloroethane	<b>0.020</b>	U ppmv	0.020	0.0040	1		10/3/2012 22:48	SL
cis-1,2-Dichloroethene	<b>0.020</b>	U ppmv	0.020	0.0070	1		10/3/2012 22:48	SL
Chloroform	<b>0.0012J</b>	ppmv	0.0050	0.0010	1		10/3/2012 22:48	SL
1,1,1-Trichloroethane	<b>0.0050</b>	U ppmv	0.0050	0.0010	1		10/3/2012 22:48	SL
Carbon Tetrachloride	<b>0.0050</b>	U ppmv	0.0050	0.0010	1		10/3/2012 22:48	SL
Trichloroethene	<b>0.0017J</b>	ppmv	0.010	0.0010	1		10/3/2012 22:48	SL
Tetrachloroethene	<b>0.18</b>	ppmv	0.010	0.0010	1		10/3/2012 22:48	SL

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## ANALYTICAL RESULTS

Workorder: 6744 MI PLAZA / M01046

Lab ID: **67440003** Date Received: 9/27/2012 13:00 Matrix: Vapor  
Sample ID: **B-3** Date Collected: 9/25/2012 11:48

Parameters	Results	Units	PQL	MDL	DF Prepared	By	Analyzed	By	Qual
------------	---------	-------	-----	-----	-------------	----	----------	----	------

### RISK - MICR

Analysis Desc: AM4.02 Vapors

Analytical Method: AM4.02 Vapors

Vinyl Chloride	<b>0.14</b> J	ppmv	1.0	0.095	1			10/3/2012 23:55	SL
1,1-Dichloroethene	<b>0.010</b> U	ppmv	0.010	0.0010	1			10/3/2012 23:55	SL
Methylene Chloride	<b>2.0</b> U	ppmv	2.0	0.19	1			10/3/2012 23:55	SL
trans-1,2-Dichloroethene	<b>0.010</b> U	ppmv	0.010	0.0080	1			10/3/2012 23:55	SL
1,1-Dichloroethane	<b>0.020</b> U	ppmv	0.020	0.0040	1			10/3/2012 23:55	SL
cis-1,2-Dichloroethene	<b>0.020</b> U	ppmv	0.020	0.0070	1			10/3/2012 23:55	SL
Chloroform	<b>0.0050</b> U	ppmv	0.0050	0.0010	1			10/3/2012 23:55	SL
1,1,1-Trichloroethane	<b>0.0050</b> U	ppmv	0.0050	0.0010	1			10/3/2012 23:55	SL
Carbon Tetrachloride	<b>0.0050</b> U	ppmv	0.0050	0.0010	1			10/3/2012 23:55	SL
Trichloroethene	<b>0.0018</b> J	ppmv	0.010	0.0010	1			10/3/2012 23:55	SL
Tetrachloroethene	<b>0.088</b> ppmv		0.010	0.0010	1			10/3/2012 23:55	SL

Report ID: 6744 - 292310

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## ANALYTICAL RESULTS

Workorder: 6744 MI PLAZA / M01046

Lab ID: **67440004** Date Received: 9/27/2012 13:00 Matrix: Vapor  
Sample ID: **B-4** Date Collected: 9/25/2012 11:58

Parameters	Results	Units	PQL	MDL	DF Prepared	By	Analyzed	By	Qual
<b>RISK - MICR</b>									
Analysis Desc: AM4.02 Vapors      Analytical Method: AM4.02 Vapors									
Vinyl Chloride	<b>0.10J</b>	ppmv	1.0	0.095	1			10/4/2012 01:03	SL
1,1-Dichloroethene	<b>0.010 U</b>	ppmv	0.010	0.0010	1			10/4/2012 01:03	SL
Methylene Chloride	<b>2.0 U</b>	ppmv	2.0	0.19	1			10/4/2012 01:03	SL
trans-1,2-Dichloroethene	<b>0.010 U</b>	ppmv	0.010	0.0080	1			10/4/2012 01:03	SL
1,1-Dichloroethane	<b>0.020 U</b>	ppmv	0.020	0.0040	1			10/4/2012 01:03	SL
cis-1,2-Dichloroethene	<b>0.020 U</b>	ppmv	0.020	0.0070	1			10/4/2012 01:03	SL
Chloroform	<b>0.0050 U</b>	ppmv	0.0050	0.0010	1			10/4/2012 01:03	SL
1,1,1-Trichloroethane	<b>0.0050 U</b>	ppmv	0.0050	0.0010	1			10/4/2012 01:03	SL
Carbon Tetrachloride	<b>0.0050 U</b>	ppmv	0.0050	0.0010	1			10/4/2012 01:03	SL
Trichloroethene	<b>0.010 U</b>	ppmv	0.010	0.0010	1			10/4/2012 01:03	SL
Tetrachloroethene	<b>0.0010J</b>	ppmv	0.010	0.0010	1			10/4/2012 01:03	SL

Report ID: 6744 - 292310

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## ANALYTICAL RESULTS

Workorder: 6744 MI PLAZA / M01046

Lab ID: **67440005** Date Received: 9/27/2012 13:00 Matrix: Vapor  
Sample ID: **B-5** Date Collected: 9/25/2012 12:15

Parameters	Results	Units	PQL	MDL	DF Prepared	By	Analyzed	By	Qual
------------	---------	-------	-----	-----	-------------	----	----------	----	------

### RISK - MICR

Analysis Desc: AM4.02 Vapors		Analytical Method: AM4.02 Vapors							
Vinyl Chloride	<b>0.15J</b> ppmv		1.0	0.095	1			10/4/2012 02:11	SL
1,1-Dichloroethene	<b>0.010 U</b> ppmv		0.010	0.0010	1			10/4/2012 02:11	SL
Methylene Chloride	<b>2.0 U</b> ppmv		2.0	0.19	1			10/4/2012 02:11	SL
trans-1,2-Dichloroethene	<b>0.010 U</b> ppmv		0.010	0.0080	1			10/4/2012 02:11	SL
1,1-Dichloroethane	<b>0.020 U</b> ppmv		0.020	0.0040	1			10/4/2012 02:11	SL
cis-1,2-Dichloroethene	<b>0.020 U</b> ppmv		0.020	0.0070	1			10/4/2012 02:11	SL
Chloroform	<b>0.0050 U</b> ppmv		0.0050	0.0010	1			10/4/2012 02:11	SL
1,1,1-Trichloroethane	<b>0.0050 U</b> ppmv		0.0050	0.0010	1			10/4/2012 02:11	SL
Carbon Tetrachloride	<b>0.0050 U</b> ppmv		0.0050	0.0010	1			10/4/2012 02:11	SL
Trichloroethene	<b>0.0012J</b> ppmv		0.010	0.0010	1			10/4/2012 02:11	SL
Tetrachloroethene	<b>0.018</b> ppmv		0.010	0.0010	1			10/4/2012 02:11	SL

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Microseeps, Inc.  
220 William Pitt Way  
Pittsburgh, PA 15238  
Phone: (412) 826-5245  
Fax: (412) 826-3433

## ANALYTICAL RESULTS

Workorder: 6744 MI PLAZA / M01046

Lab ID: **67440006** Date Received: 9/27/2012 13:00 Matrix: Vapor  
Sample ID: **B-6** Date Collected: 9/25/2012 12:25

Parameters	Results	Units	PQL	MDL	DF Prepared	By	Analyzed	By	Qual
<b>RISK - MICR</b>									
Analysis Desc: AM4.02 Vapors      Analytical Method: AM4.02 Vapors									
Vinyl Chloride	<b>0.11</b> J	ppmv	1.0	0.095	1			10/4/2012 03:19	SL
1,1-Dichloroethene	<b>0.010</b> U	ppmv	0.010	0.0010	1			10/4/2012 03:19	SL
Methylene Chloride	<b>2.0</b> U	ppmv	2.0	0.19	1			10/4/2012 03:19	SL
trans-1,2-Dichloroethene	<b>0.010</b> U	ppmv	0.010	0.0080	1			10/4/2012 03:19	SL
1,1-Dichloroethane	<b>0.020</b> U	ppmv	0.020	0.0040	1			10/4/2012 03:19	SL
cis-1,2-Dichloroethene	<b>0.020</b> U	ppmv	0.020	0.0070	1			10/4/2012 03:19	SL
Chloroform	<b>0.0050</b> U	ppmv	0.0050	0.0010	1			10/4/2012 03:19	SL
1,1,1-Trichloroethane	<b>0.0050</b> U	ppmv	0.0050	0.0010	1			10/4/2012 03:19	SL
Carbon Tetrachloride	<b>0.0050</b> U	ppmv	0.0050	0.0010	1			10/4/2012 03:19	SL
Trichloroethene	<b>0.010</b> U	ppmv	0.010	0.0010	1			10/4/2012 03:19	SL
Tetrachloroethene	<b>0.031</b>	ppmv	0.010	0.0010	1			10/4/2012 03:19	SL

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## ANALYTICAL RESULTS

Workorder: 6744 MI PLAZA / M01046

Lab ID: **67440007** Date Received: 9/27/2012 13:00 Matrix: Vapor  
Sample ID: **B-7** Date Collected: 9/25/2012 12:38

Parameters	Results	Units	PQL	MDL	DF Prepared	By	Analyzed	By	Qual
------------	---------	-------	-----	-----	-------------	----	----------	----	------

### RISK - MICR

Analysis Desc: AM4.02 Vapors	Analytical Method: AM4.02 Vapors							
Vinyl Chloride	1.0	U ppmv	1.0	0.095	1		10/4/2012 04:27	SL
1,1-Dichloroethene	0.010	U ppmv	0.010	0.0010	1		10/4/2012 04:27	SL
Methylene Chloride	2.0	U ppmv	2.0	0.19	1		10/4/2012 04:27	SL
trans-1,2-Dichloroethene	0.010	U ppmv	0.010	0.0080	1		10/4/2012 04:27	SL
1,1-Dichloroethane	0.020	U ppmv	0.020	0.0040	1		10/4/2012 04:27	SL
cis-1,2-Dichloroethene	0.020	U ppmv	0.020	0.0070	1		10/4/2012 04:27	SL
Chloroform	0.0050	U ppmv	0.0050	0.0010	1		10/4/2012 04:27	SL
1,1,1-Trichloroethane	0.0050	U ppmv	0.0050	0.0010	1		10/4/2012 04:27	SL
Carbon Tetrachloride	0.0050	U ppmv	0.0050	0.0010	1		10/4/2012 04:27	SL
Trichloroethene	0.010	U ppmv	0.010	0.0010	1		10/4/2012 04:27	SL
Tetrachloroethene	0.010	U ppmv	0.010	0.0010	1		10/4/2012 04:27	SL

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## ANALYTICAL RESULTS QUALIFIERS

Workorder: 6744 MI PLAZA / M01046

### PARAMETER QUALIFIERS

- MDL Method Detection Limit. Can be used synonymously with LOD; Limit Of Detection.
- PQL Practical Quantitation Limit. Can be used synonymously with LOQ; Limit Of Quantitation.
- ND Not detected at or above reporting limit.
- DF Dilution Factor.
- S Surrogate.
- RPD Relative Percent Difference.
- % Rec Percent Recovery.
- U Indicates the compound was analyzed for, but not detected at or above the noted concentration.
- J Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (PQL).

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## QUALITY CONTROL DATA

Workorder: 6744 MI PLAZA / M01046

QC Batch: VAP/1283 Analysis Method: AM4.02 Vapors  
QC Batch Method: AM4.02 Vapors  
Associated Lab Samples: 67440001, 67440002, 67440003, 67440004, 67440005, 67440006, 67440007

METHOD BLANK: 15055

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
1,1-Dichloroethene	ppmv	0.010 U	0.010	
trans-1,2-Dichloroethene	ppmv	0.010 U	0.010	
1,1-Dichloroethane	ppmv	0.020 U	0.020	
cis-1,2-Dichloroethene	ppmv	0.020 U	0.020	
Chloroform	ppmv	0.0050 U	0.0050	
1,1,1-Trichloroethane	ppmv	0.0050 U	0.0050	
Carbon Tetrachloride	ppmv	0.0050 U	0.0050	
Trichloroethene	ppmv	0.010 U	0.010	
Tetrachloroethene	ppmv	0.010 U	0.010	

METHOD BLANK: 15056

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Vinyl Chloride	ppmv	1.0 U	1.0	
Methylene Chloride	ppmv	2.0 U	2.0	

LABORATORY CONTROL SAMPLE & LCSD: 15057 15059

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD Qualifiers
RISK									
1,1-Dichloroethene	ppmv	0.65	0.65	0.65	100	100	75-125	0	20
trans-1,2-Dichloroethene	ppmv	0.65	0.74	0.72	115	111	75-125	3.5	20
1,1-Dichloroethane	ppmv	0.64	0.70	0.67	109	105	75-125	3.7	20
cis-1,2-Dichloroethene	ppmv		0.020 U	0.020 U					
Chloroform	ppmv	0.53	0.54	0.54	103	102	75-125	0.98	20
1,1,1-Trichloroethane	ppmv	0.47	0.49	0.48	104	103	75-125	0.97	20
Carbon Tetrachloride	ppmv	0.41	0.42	0.42	103	102	75-125	0.98	20
Trichloroethene	ppmv	0.48	0.51	0.51	107	105	75-125	1.9	20
Tetrachloroethene	ppmv		0.010 U	0.010 U					

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## QUALITY CONTROL DATA

Workorder: 6744 MI PLAZA / M01046

LABORATORY CONTROL SAMPLE & LCSD: 15058 15060

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Vinyl Chloride	ppmv		1.0 U	1.0 U						
Methylene Chloride	ppmv		2.0 U	2.0 U						

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Pittsburgh, PA 15238  
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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 6744 MI PLAZA / M01046

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
67440001	B-1			AM4.02 Vapors	VAP/1283
67440002	B-2			AM4.02 Vapors	VAP/1283
67440003	B-3			AM4.02 Vapors	VAP/1283
67440004	B-4			AM4.02 Vapors	VAP/1283
67440005	B-5			AM4.02 Vapors	VAP/1283
67440006	B-6			AM4.02 Vapors	VAP/1283
67440007	B-7			AM4.02 Vapors	VAP/1283

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6944

Microseeps  
Lab. Proj. #

## CHAIN - OF - CUSTODY RECORD

Microseeps  
COC cont. #

Phone: (412) 826-5245

Fax No. : (412) 826-3433

Microseeps

Inc. - 220 William Pitt Way - Pittsburgh, PA 15238

Company :

Mandell &amp; Assoc.

Co. Address :

110 S. Downing Ave

Phone # :

317-4630-9060 Fax #: 317-1636-9065

Proj. Manager :

Mark Breitling

Proj. Name/Number :

Invoice to : Microseeps

Sampler's signature :

Sample ID	Sample Description	Sample Type Water/Vapor/Solid	Date	Time	Parameters Requested	
					Temp	Humidity
B-1	Vapor -	X	9/25/01	11:30A	2	X
B-2		X		11:35A	2	
B-3		X		11:40A	2	
B-4		X		11:58A	2	
B-5		Y		12:15P	2	
B-6	V	Y		12:25P	2	V
B-7	V	X		12:30P	2	V

Results to : Mark Breitling

Remarks :

Relinquished by :	Company : Microseeps	Date : 9-27-01	Time : 3:30P	Received by :	Company : Microseeps	Date : 9-27-01	Time : 3:30P
Relinquished by :	Company : Microseeps	Date :	Time :	Received by :	Company : Microseeps	Date :	Time :
Relinquished by :	Company : Microseeps	Date :	Time :	Received by :	Company : Microseeps	Date :	Time :

WHITE COPY : Accompany Samples

YELLOW COPY : Laboratory File

PINK COPY : Submitter

## **APPENDIX B**

Air Mitigation Systems: Pounds of Contaminants Removed

**APPENDIX B**

Air Mitigation System - Historical Air Analytical Results

Michigan Plaza

Indianapolis, Indiana

MUNDELL Project No.: M01046

Sample Date	Perchloroethylene (PCE)											
	B-1	B-2	B-3	B-4	B-1	B-2	B-3	B-4	B-1	B-2	B-3	B-4
	(ppmv)				(ppm)				(\mu g/m³)			
9/21/2006	0.6300	0.7900	0.6700	0.2800	0.0043	0.0054	0.0046	0.0019	4281.48	5368.84	4553.32	1902.88
10/6/2006	0.8800	0.6700	0.9700	0.3100	0.0060	0.0046	0.0066	0.0021	5980.48	4553.32	6592.12	2106.76
10/13/2006	0.6800	0.3600	0.5200	0.2100	0.0046	0.0024	0.0035	0.0014	4621.28	2446.56	3533.92	1427.16
10/20/2006	0.8700	0.5500	0.8900	0.2200	0.0059	0.0037	0.0060	0.0015	5912.52	3737.80	6048.44	1495.12
11/17/2006	0.8100	0.4700	0.7800	0.1500	0.0055	0.0032	0.0053	0.0010	5504.76	3194.12	5300.88	1019.40
12/27/2006	0.7400	0.4700	0.7500	0.1100	0.0050	0.0032	0.0051	0.0007	5029.04	3194.12	5097.00	747.56
3/30/2007	0.5100	0.1800	0.5700	0.0310	0.0035	0.0012	0.0039	0.0002	3465.96	1223.28	3873.72	210.68
6/15/2007	0.0050	0.3100	0.2100	0.4600	0.0000	0.0021	0.0014	0.0031	33.98	2106.76	1427.16	3126.16
10/16/2007	0.3900	0.2400	0.2800	0.0670	0.0027	0.0016	0.0019	0.0005	2650.44	1631.04	1902.88	455.33
12/14/2007	0.5800	0.3400	0.5200	0.1400	0.0039	0.0023	0.0035	0.0010	3941.68	2310.64	3533.92	951.44
3/27/2008	0.5500	NS	0.5600	0.0740	0.0037	NS	0.0038	0.0005	3737.80	NS	3805.76	502.90
4/1/2008	NS	0.3600	NS	NS	NS	0.0024	NS	NS	2446.56	NS	NS	NS
6/2/2008	0.7200	0.5600	0.4900	0.1000	0.0049	0.0038	0.0033	0.0007	4893.12	3805.76	3330.04	679.60
9/12/2008	0.4800	0.4700	0.5300	0.1300	0.0033	0.0032	0.0036	0.0009	3262.08	3194.12	3601.88	883.48
11/26/2008	0.4600	NS	0.3600	0.1100	0.0031	NS	0.0024	0.0007	3126.16	NS	2446.56	747.56
3/24/2009	0.4500	NS	0.5500	0.0050	0.0031	NS	0.0037	0.00003	3058.20	NS	3737.80	33.98
6/15/2009	0.4300	NS	0.4200	0.0200	0.0029	NS	0.0029	0.0001	2922.28	NS	2854.32	135.92
8/21/2009	0.3600	0.1600	0.4700	0.0140	0.0024	0.0011	0.0032	0.0001	2446.56	1087.36	3194.12	95.14
11/5/2009	0.3300	0.1400	0.4100	0.0050	0.0022	0.0010	0.0028	0.00003	2242.68	951.44	2786.36	33.98
2/5/2010	0.1600	0.0370	0.1400	0.0120	0.0011	0.0003	0.0010	0.0001	1087.36	251.45	951.44	81.55
4/23/2010	0.1300	NS	NS	0.0170	0.0009	NS	NS	0.0001	883.48	NS	NS	115.53
5/6/2010	NS	0.1500	0.2500	NS	NS	0.0010	0.0017	NS	NS	1019.40	1699.00	NS
7/23/2010	0.1500	0.1900	0.1200	0.0050	0.0010	0.0013	0.0008	0.00003	1019.40	1291.24	815.52	33.98
10/13/2010	NS	NS	NS	0.0050	NS	NS	NS	0.00003	NS	NS	NS	33.98
10/15/2010	0.0940	0.0650	0.0050	NS	0.0006	0.0004	0.0000	NS	638.82	441.74	33.98	NS
1/21/2011	0.1400	0.0270	NS	0.0050	0.0010	0.0002	NS	0.00003	951.44	183.49	NS	33.98
4/8/2011	NS	NS	0.2100	NS	NS	NS	0.0014	NS	NS	NS	1427.16	NS
5/11/2011	0.2200	0.2700	0.2100	0.0230	0.0015	0.0018	0.0014	0.0002	1495.12	1834.92	1427.16	156.31
7/29/2011	0.0660	0.1700	0.1100	0.0050	0.0004	0.0012	0.0007	0.00003	448.54	1155.32	747.56	33.98
10/25/2011	0.1100	0.1200	0.0530	0.0050	0.0007	0.0008	0.0004	0.00003	747.56	815.52	360.19	33.98
1/20/2012	0.1000	0.0810	0.0660	0.0081	0.0007	0.0006	0.0004	0.00006	679.60	550.48	448.54	55.05
6/15/2012	0.0710	0.1200	0.0480	0.0046	0.0005	0.0008	0.0003	0.00003	482.52	815.52	326.21	31.26
9/25/2012	0.1000	0.1800	0.0880	0.0010	0.0007	0.0012	0.0006	0.00001	679.60	1223.28	598.05	6.80

NS = Not sampled

*Italic* = Reported concentrations are estimated values (J-flagged values) or below laboratory detection limits. Concentrations of PCE, TCE, and cis-1,2-DCE are assumed to be one-half the laboratory practical quantitation limit (PQL). Concentrations of vinyl chloride are assumed to be 0.015 ppmv, representing the mean detected concentration below laboratory reporting limits.

**APPENDIX B**  
**Air Mitigation System - Historical Air Analytical Results**  
**Michigan Plaza**  
**Indianapolis, Indiana**  
**MUNDELL Project No.: M01046**

Sample Date	Trichloroethylene (TCE)											
	B-1	B-2	B-3	B-4	B-1	B-2	B-3	B-4	B-1	B-2	B-3	B-4
	(ppmv)				(ppm)				(\mu g/m³)			
9/21/2006	0.0240	0.0120	0.0050	0.0050	0.0001	0.0001	0.00003	0.00003	129.24	64.62	26.93	26.93
10/6/2006	0.0120	0.0050	0.0050	0.0050	0.0001	0.00003	0.00003	0.00003	64.62	26.93	26.93	26.93
10/13/2006	0.0050	0.0050	0.0050	0.0050	0.00003	0.00003	0.00003	0.00003	26.93	26.93	26.93	26.93
10/20/2006	0.0050	0.0050	0.0050	0.0050	0.00003	0.00003	0.00003	0.00003	26.93	26.93	26.93	26.93
11/17/2006	0.0050	0.0050	0.0050	0.0050	0.00003	0.00003	0.00003	0.00003	26.93	26.93	26.93	26.93
12/27/2006	0.0050	0.0050	0.0050	0.0050	0.00003	0.00003	0.00003	0.00003	26.93	26.93	26.93	26.93
3/30/2007	0.0050	0.0050	0.0050	0.0050	0.00003	0.00003	0.00003	0.00003	26.93	26.93	26.93	26.93
6/15/2007	0.4600	0.0050	0.0050	0.0050	0.0025	0.00003	0.00003	0.00003	2,477.10	26.93	26.93	26.93
10/16/2007	0.0050	0.0050	0.0050	0.0050	0.00003	0.00003	0.00003	0.00003	26.93	26.93	26.93	26.93
12/14/2007	0.0050	0.0050	0.0050	0.0050	0.00003	0.00003	0.00003	0.00003	26.93	26.93	26.93	26.93
3/27/2008	0.0050	NS	0.0050	0.0050	0.00003	NS	0.00003	0.00003	26.93	NS	26.93	26.93
4/1/2008	NS	0.0050	NS	NS	NS	0.0000	NS	NS	NS	26.93	NS	NS
6/2/2008	0.0050	0.0050	0.0050	0.0050	0.00003	0.00003	0.00003	0.00003	26.93	26.93	26.93	26.93
9/12/2008	0.0050	0.0050	0.0050	0.0050	0.00003	0.00003	0.00003	0.00003	26.93	26.93	26.93	26.93
11/26/2008	0.0050	NS	0.0050	0.0050	0.00003	NS	0.00003	0.00003	26.93	NS	26.93	26.93
3/24/2009	0.0050	NS	0.0050	0.0050	0.00003	NS	0.00003	0.00003	26.93	NS	26.93	26.93
6/15/2009	0.0050	NS	0.0050	0.0050	0.00003	NS	0.00003	0.00003	26.93	NS	26.93	26.93
8/21/2009	0.0050	0.0050	0.0050	0.0050	0.00003	0.00003	0.00003	0.00003	26.93	26.93	26.93	26.93
11/5/2009	0.0050	0.0050	0.0050	0.0050	0.00003	0.00003	0.00003	0.00003	26.93	26.93	26.93	26.93
2/5/2010	0.0050	0.0050	0.0050	0.0050	0.00003	0.00003	0.00003	0.00003	26.93	26.93	26.93	26.93
4/23/2010	0.0050	NS	NS	0.0050	0.00003	NS	NS	0.00003	26.93	NS	NS	26.93
5/6/2010	NS	0.0050	0.0050	NS	NS	0.00003	0.00003	NS	NS	26.93	26.93	NS
7/23/2010	0.0050	0.0050	0.0050	0.0050	0.00003	0.00003	0.00003	0.00003	26.93	26.93	26.93	26.93
10/13/2010	NS	NS	NS	0.0050	NS	NS	NS	0.00003	NS	NS	NS	26.93
10/15/2010	0.0050	0.0050	0.0050	NS	0.00003	0.00003	0.00003	NS	26.93	26.93	26.93	NS
1/21/2011	0.0050	0.0050	NS	0.0050	0.00003	0.00003	NS	0.00003	26.93	26.93	NS	26.93
4/8/2011	NS	NS	0.0050	NS	NS	NS	0.00003	NS	NS	NS	26.93	NS
5/11/2011	0.0050	0.0050	0.0050	0.0050	0.00003	0.00003	0.00003	0.00003	26.93	26.93	26.93	26.93
7/29/2011	0.0050	0.0050	0.0050	0.0050	0.00003	0.00003	0.00003	0.00003	26.93	26.93	26.93	26.93
10/25/2011	0.0050	0.0050	0.0050	0.0050	0.00003	0.00003	0.00003	0.00003	26.93	26.93	26.93	26.93
1/20/2012	0.0050	0.0050	0.0011	0.0050	0.00003	0.00003	0.00001	0.00003	26.93	26.93	5.92	26.93
6/15/2012	0.0013	0.0011	0.0050	0.0050	0.00001	0.00001	0.00003	0.00003	7.00	5.92	26.93	26.93
9/25/2012	0.0013	0.0017	0.0018	0.0050	0.00001	0.00001	0.00001	0.00003	7.00	9.15	9.69	26.93

NS = Not sampled

*Italic* = Reported concentrations are estimated values (J-flagged values) or below laboratory detection limits. Concentrations of PCE, TCE, and cis-1,2-DCE are assumed to be one-half the laboratory practical quantitation limit (PQL). Concentrations of vinyl chloride are assumed to be 0.015 ppmv, representing the mean detected concentration below laboratory reporting limits.

**APPENDIX B**  
**Air Mitigation System - Historical Air Analytical Results**  
**Michigan Plaza**  
**Indianapolis, Indiana**  
**MUNDELL Project No.: M01046**

Sample Date	Vinyl Chloride											
	B-1	B-2	B-3	B-4	B-1	B-2	B-3	B-4	B-1	B-2	B-3	B-4
	(ppmv)				(ppm)				(\mu g/m³)			
9/21/2006	0.0150	0.0150	0.0150	0.0150	0.00004	0.00004	0.00004	0.00004	38.42	38.42	38.42	38.42
10/6/2006	0.0150	0.0150	0.0150	0.0150	0.00004	0.00004	0.00004	0.00004	38.42	38.42	38.42	38.42
10/13/2006	0.0150	0.0150	0.0150	0.0150	0.00004	0.00004	0.00004	0.00004	38.42	38.42	38.42	38.42
10/20/2006	0.0150	0.0150	0.0150	0.0150	0.00004	0.00004	0.00004	0.00004	38.42	38.42	38.42	38.42
11/17/2006	0.0150	0.0150	0.0150	0.0150	0.00004	0.00004	0.00004	0.00004	38.42	38.42	38.42	38.42
12/27/2006	0.0150	0.0150	0.0150	0.0150	0.00004	0.00004	0.00004	0.00004	38.42	38.42	38.42	38.42
3/30/2007	0.0150	0.0150	0.0150	0.0150	0.00004	0.00004	0.00004	0.00004	38.42	38.42	38.42	38.42
6/15/2007	0.0150	0.0150	0.0150	0.0150	0.00004	0.00004	0.00004	0.00004	38.42	38.42	38.42	38.42
10/16/2007	0.0150	0.0150	0.0150	0.0150	0.00004	0.00004	0.00004	0.00004	38.42	38.42	38.42	38.42
12/14/2007	0.0150	0.0150	0.0150	0.0150	0.00004	0.00004	0.00004	0.00004	38.42	38.42	38.42	38.42
3/27/2008	0.0150	NS	0.0150	0.0150	0.00004	NS	0.00004	0.00004	38.42	NS	38.42	38.42
4/1/2008	NS	0.0150	NS	NS	NS	0.00004	NS	NS	NS	38.42	NS	NS
6/2/2008	0.0150	0.0150	0.0150	0.0150	0.00004	0.00004	0.00004	0.00004	38.42	38.42	38.42	38.42
9/12/2008	0.0150	0.0150	0.0150	0.0150	0.00004	0.00004	0.00004	0.00004	38.42	38.42	38.42	38.42
11/26/2008	0.0150	NS	0.0150	0.0150	0.00004	NS	0.00004	0.00004	38.42	NS	38.42	38.42
3/24/2009	0.0150	NS	0.0150	0.0150	0.00004	NS	0.00004	0.00004	38.42	NS	38.42	38.42
6/15/2009	0.0150	NS	0.0150	0.0150	0.00004	NS	0.00004	0.00004	38.42	NS	38.42	38.42
8/21/2009	0.0150	0.0150	0.0150	0.0150	0.00004	0.00004	0.00004	0.00004	38.42	38.42	38.42	38.42
11/5/2009	0.0150	0.0150	0.0150	0.0150	0.00004	0.00004	0.00004	0.00004	38.42	38.42	38.42	38.42
2/5/2010	0.0150	0.0150	0.0150	0.0150	0.00004	0.00004	0.00004	0.00004	38.42	38.42	38.42	38.42
4/23/2010	0.0150	NS	NS	0.0150	0.00004	NS	NS	0.00004	38.42	NS	NS	38.42
5/6/2010	NS	0.0150	0.0150	NS	NS	0.00004	0.00004	NS	NS	38.42	38.42	NS
7/23/2010	0.0150	0.0150	0.0150	0.0150	0.00004	0.00004	0.00004	0.00004	38.42	38.42	38.42	38.42
10/13/2010	NS	NS	NS	0.0150	NS	NS	NS	0.00004	NS	NS	NS	38.42
10/15/2010	0.0150	0.0150	0.0150	NS	0.00004	0.00004	0.00004	NS	38.42	38.42	38.42	NS
1/21/2011	0.0150	0.0150	NS	0.0150	0.00004	0.00004	NS	0.00004	38.42	38.42	NS	38.42
4/8/2011	NS	NS	0.0150	NS	NS	NS	0.00004	NS	NS	NS	38.42	NS
5/11/2011	0.0150	0.0150	0.0150	0.0150	0.00004	0.00004	0.00004	0.00004	38.42	38.42	38.42	38.42
7/29/2011	0.0150	0.0150	0.0150	0.0150	0.00004	0.00004	0.00004	0.00004	38.42	38.42	38.42	38.42
10/25/2011	0.0150	0.0150	0.0150	0.0150	0.00004	0.00004	0.00004	0.00004	38.42	38.42	38.42	38.42
1/20/2012	0.2000	0.1100	0.0150	0.0150	0.00051	0.00028	0.00004	0.00004	512.20	281.71	38.42	38.42
6/15/2012	0.0150	0.0150	0.0150	0.0150	0.00004	0.00004	0.00004	0.00004	38.42	38.42	38.42	38.42
9/25/2012	0.0150	0.0150	0.1400	0.1000	0.00004	0.00004	0.00036	0.00026	38.42	38.42	358.54	256.10

NS = Not sampled

*Italic* = Reported concentrations are estimated values (J-flagged values) or below laboratory detection limits. Concentrations of PCE, TCE, and cis-1,2-DCE are assumed to be one-half the laboratory practical quantitation limit (PQL). Concentrations of vinyl chloride are assumed to be 0.015 ppmv, representing the mean detected concentration below laboratory reporting limits.

**APPENDIX B**  
**Air Mitigation System - Historical Air Analytical Results**  
**Michigan Plaza**  
**Indianapolis, Indiana**  
**MUNDELL Project No.: M01046**

Sample Date	cis-1,2-Dichloroethylene											
	B-1	B-2	B-3	B-4	B-1	B-2	B-3	B-4	B-1	B-2	B-3	B-4
	(ppmv)				(ppm)				(\mu g/m³)			
9/21/2006	0.1400	0.0100	0.0100	0.0100	0.0006	0.00004	0.00004	0.00004	556.22	39.73	39.73	39.73
10/6/2006	0.0300	0.0100	0.0100	0.0100	0.0001	0.00004	0.00004	0.00004	119.19	39.73	39.73	39.73
10/13/2006	0.0100	0.0100	0.0100	0.0100	0.00004	0.00004	0.00004	0.00004	39.73	39.73	39.73	39.73
10/20/2006	0.0100	0.0100	0.0100	0.0100	0.00004	0.00004	0.00004	0.00004	39.73	39.73	39.73	39.73
11/17/2006	0.0100	0.0100	0.0100	0.0100	0.00004	0.00004	0.00004	0.00004	39.73	39.73	39.73	39.73
12/27/2006	0.0240	0.0100	0.0100	0.0100	0.0001	0.00004	0.00004	0.00004	95.35	39.73	39.73	39.73
3/30/2007	0.0100	0.0100	0.0100	0.0100	0.00004	0.00004	0.00004	0.00004	39.73	39.73	39.73	39.73
6/15/2007	0.2100	0.0100	0.0100	0.0100	0.0008	0.00004	0.00004	0.00004	834.33	39.73	39.73	39.73
10/16/2007	0.0100	0.0100	0.0100	0.0100	0.00004	0.00004	0.00004	0.00004	39.73	39.73	39.73	39.73
12/14/2007	0.0100	0.0100	0.0100	0.0100	0.00004	0.00004	0.00004	0.00004	39.73	39.73	39.73	39.73
3/27/2008	0.0340	NS	0.0100	0.0100	0.0001	NS	0.00004	0.00004	135.08	NS	39.73	39.73
4/1/2008	NS	0.0100	NS	NS	NS	0.00004	NS	NS	NS	39.73	NS	NS
6/2/2008	0.0100	0.0100	0.0100	0.0100	0.00004	0.00004	0.00004	0.00004	39.73	39.73	39.73	39.73
9/12/2008	0.0100	0.0100	0.0100	0.0100	0.00004	0.00004	0.00004	0.00004	39.73	39.73	39.73	39.73
11/26/2008	0.0100	NS	0.0100	0.0100	0.00004	NS	0.00004	0.00004	39.73	NS	39.73	39.73
3/24/2009	0.0100	NS	0.0100	0.0100	0.00004	NS	0.00004	0.00004	39.73	NS	39.73	39.73
6/15/2009	0.0100	NS	0.0100	0.0100	0.00004	NS	0.00004	0.00004	39.73	NS	39.73	39.73
8/21/2009	0.0100	0.0100	0.0100	0.0100	0.00004	0.00004	0.00004	0.00004	39.73	39.73	39.73	39.73
11/5/2009	0.0100	0.0100	0.0100	0.0100	0.00004	0.00004	0.00004	0.00004	39.73	39.73	39.73	39.73
2/5/2010	0.0100	0.0100	0.0100	0.0100	0.00004	0.00004	0.00004	0.00004	39.73	39.73	39.73	39.73
4/23/2010	0.0100	NS	NS	0.0100	0.00004	NS	NS	0.00004	39.73	NS	NS	39.73
5/6/2010	NS	0.0100	0.0100	NS	NS	0.00004	0.00004	NS	NS	39.73	39.73	NS
7/23/2010	0.0100	0.0100	0.0100	0.0100	0.00004	0.00004	0.00004	0.00004	39.73	39.73	39.73	39.73
10/13/2010	NS	NS	NS	0.0100	NS	NS	NS	0.00004	NS	NS	NS	39.73
10/15/2010	0.0100	0.0100	0.0100	NS	0.00004	0.00004	0.00004	NS	39.73	39.73	39.73	NS
1/21/2011	0.0100	0.0100	NS	0.0100	0.00004	0.00004	NS	0.00004	39.73	39.73	NS	39.73
4/8/2011	NS	NS	0.0500	NS	NS	NS	0.0002	NS	NS	NS	198.65	NS
5/11/2011	0.0100	0.0100	0.0100	0.0100	0.00004	0.00004	0.00004	0.00004	39.73	39.73	39.73	39.73
7/29/2011	0.0100	0.0100	0.0100	0.0100	0.00004	0.00004	0.00004	0.00004	39.73	39.73	39.73	39.73
10/25/2011	0.0100	0.0100	0.0100	0.0100	0.00004	0.00004	0.00004	0.00004	39.73	39.73	39.73	39.73
1/20/2012	0.0100	0.0100	0.0100	0.0100	0.00004	0.00004	0.00004	0.00004	39.73	39.73	39.73	39.73
6/15/2012	0.0100	0.0100	0.0100	0.0100	0.00004	0.00004	0.00004	0.00004	39.73	39.73	39.73	39.73
9/25/2012	0.0100	0.0100	0.0100	0.0100	0.00004	0.00004	0.00004	0.00004	39.73	39.73	39.73	39.73

NS = Not sampled

*Italic* = Reported concentrations are estimated values (J-flagged values) or below laboratory detection limits. Concentrations of PCE, TCE, and cis-1,2-DCE are assumed to be one-half the laboratory practical quantitation limit (PQL). Concentrations of vinyl chloride are assumed to be 0.015 ppmv, representing the mean detected concentration below laboratory reporting limits.

**APPENDIX B**  
**Air Mitigation System - Historical Air Analytical Results**  
**Michigan Meadows Apartments**  
**Indianapolis, Indiana**  
**MUNDELL Project No.: M01046**

Sample Date	Perchloroethylene (PCE)								
	B-5	B-6	B-7	B-5	B-6	B-7	B-5	B-6	B-7
	(ppmv)			(ppm)			( $\mu\text{g}/\text{m}^3$ )		
3/27/2008	0.1300	1.2000	NS	0.0009	0.0082	NS	883.48	8155.20	NS
3/28/2008	0.0730	0.4900	NS	0.0005	0.0033	NS	496.11	3330.04	NS
4/7/2008	NS	NS	0.0760	NS	NS	0.0005	NS	NS	516.50
4/8/2008	NS	NS	0.0470	NS	NS	0.0003	NS	NS	319.41
4/24/2008	0.0540	0.1100	0.0220	0.0004	0.0007	0.0001	366.98	747.56	149.51
5/1/2008	0.0580	0.2100	0.0390	0.0004	0.0014	0.0003	394.17	1427.16	265.04
6/2/2008	0.0590	0.2200	0.0530	0.0004	0.0015	0.0004	400.96	1495.12	360.19
7/10/2008	0.0650	NS	0.0540	0.0004	NS	0.0004	441.74	NS	366.98
8/20/2008	NS	0.2700	NS	NS	0.0018	NS	NS	1834.92	NS
9/12/2008	0.0690	0.1800	0.0540	0.0005	0.0012	0.0004	468.92	1223.28	366.98
11/26/2008	0.0720	0.1100	0.0560	0.0005	0.0007	0.0004	489.31	747.56	380.58
3/24/2009	0.2100	0.1300	0.0590	0.0014	0.0009	0.0004	1427.16	883.48	400.96
6/15/2009	0.0580	0.0840	<i>0.0050</i>	0.0004	0.0006	<i>0.00003</i>	394.17	570.86	33.98
8/21/2009	0.0630	0.0710	<i>0.0050</i>	0.0004	0.0005	<i>0.00003</i>	428.15	482.52	33.98
11/5/2009	0.1300	0.1100	<i>0.0050</i>	0.0009	0.0007	<i>0.00003</i>	883.48	747.56	33.98
2/5/2010	0.0220	0.0800	<i>0.0050</i>	0.0001	0.0005	<i>0.00003</i>	149.51	543.68	33.98
2/6/2010	0.0220	0.0800	<i>0.0050</i>	0.0001	0.0005	<i>0.00003</i>	149.51	543.68	33.98
4/23/2010	0.0120	NS	<i>0.0050</i>	0.0001	NS	<i>0.00003</i>	81.55	NS	33.98
5/12/2010	NS	0.1300	NS	NS	0.0009	NS	NS	883.48	NS
7/23/2010	0.0270	0.1000	<i>0.0050</i>	0.0002	0.0007	<i>0.00003</i>	183.49	679.60	33.98
10/15/2010	0.0150	0.0190	<i>0.0050</i>	0.0001	0.0001	<i>0.00003</i>	101.94	129.12	33.98
1/21/2011	0.0330	0.0490	<i>0.0050</i>	0.0002	0.0003	<i>0.00003</i>	224.27	333.00	33.98
5/11/2011	0.0580	0.0610	<i>0.0050</i>	0.0004	0.0004	<i>0.00003</i>	394.17	414.56	33.98
7/29/2011	0.0220	0.0210	<i>0.0050</i>	0.0001	0.0001	<i>0.00003</i>	149.51	142.72	33.98
10/25/2011	0.0300	0.0250	<i>0.0050</i>	0.0002	0.0002	<i>0.00003</i>	203.88	169.90	33.98
1/20/2012	0.0220	0.0180	<i>0.0029</i>	0.0001	0.0001	<i>0.00002</i>	149.51	122.33	19.71
6/15/2012	0.0140	0.0110	<i>0.0025</i>	0.0001	0.0001	<i>0.00002</i>	95.14	74.76	16.99
9/25/2012	0.0180	0.0310	<i>0.0050</i>	0.0001	0.0002	<i>0.00003</i>	122.33	210.68	33.98

NS = Not sampled

*Italic* = Reported concentrations are estimated values (J-flagged values) or below laboratory detection limits. Concentrations of PCE, TCE, and cis-1,2-DCE are assumed to be one-half the laboratory practical quantitation limit (PQL). Concentrations of vinyl chloride are assumed to be 0.015 ppmv, representing the mean detected concentration below laboratory reporting limits.

**APPENDIX B**  
**Air Mitigation System - Historical Air Analytical Results**  
**Michigan Meadows Apartments**  
**Indianapolis, Indiana**  
**MUNDELL Project No.: M01046**

Sample Date	Trichloroethylene (TCE)								
	B-5	B-6	B-7	B-5	B-6	B-7	B-5	B-6	B-7
	(ppmv)			(ppm)			( $\mu\text{g}/\text{m}^3$ )		
3/27/2008	0.0050	0.0050	NS	0.00003	0.00003	NS	26.93	26.93	NS
3/28/2008	0.0050	0.0050	NS	0.00003	0.00003	NS	26.93	26.93	NS
4/7/2008	NS	NS	0.0050	NS	NS	0.00003	NS	NS	26.93
4/8/2008	NS	NS	0.0050	NS	NS	0.00003	NS	NS	26.93
4/24/2008	0.0050	0.0050	0.0050	0.00003	0.00003	0.00003	26.93	26.93	26.93
5/1/2008	0.0050	0.0050	0.0050	0.00003	0.00003	0.00003	26.93	26.93	26.93
6/2/2008	0.0050	0.0050	0.0050	0.00003	0.00003	0.00003	26.93	26.93	26.93
7/10/2008	0.0050	NS	0.0050	0.00003	NS	0.00003	26.93	NS	26.93
8/20/2008	NS	0.0050	NS	NS	0.00003	NS	NS	26.93	NS
9/12/2008	0.0050	0.0050	0.0050	0.00003	0.00003	0.00003	26.93	26.93	26.93
11/26/2008	0.0050	0.0050	0.0050	0.00003	0.00003	0.00003	26.93	26.93	26.93
3/24/2009	0.0050	0.0050	0.0050	0.00003	0.00003	0.00003	26.93	26.93	26.93
6/15/2009	0.0050	0.0050	0.0050	0.00003	0.00003	0.00003	26.93	26.93	26.93
8/21/2009	0.0050	0.0050	0.0050	0.00003	0.00003	0.00003	26.93	26.93	26.93
11/5/2009	0.0050	0.0050	0.0050	0.00003	0.00003	0.00003	26.93	26.93	26.93
2/5/2010	0.0050	0.0050	0.0050	0.00003	0.00003	0.00003	26.93	26.93	26.93
2/6/2010	0.0050	0.0050	0.0050	0.00003	0.00003	0.00003	26.93	26.93	26.93
4/23/2010	0.0050	NS	0.0050	0.00003	NS	0.00003	26.93	NS	26.93
5/12/2010	NS	0.0050	NS	NS	0.00003	NS	NS	26.93	NS
7/23/2010	0.0050	0.0050	0.0050	0.00003	0.00003	0.00003	26.93	26.93	26.93
10/15/2010	0.0050	0.0050	0.0050	0.00003	0.00003	0.00003	26.93	26.93	26.93
1/21/2011	0.0050	0.0050	0.0050	0.00003	0.00003	0.00003	26.93	26.93	26.93
5/11/2011	0.0050	0.0050	0.0050	0.00003	0.00003	0.00003	26.93	26.93	26.93
7/29/2011	0.0050	0.0050	0.0050	0.00003	0.00003	0.00003	26.93	26.93	26.93
10/25/2011	0.0050	0.0050	0.0050	0.00003	0.00003	0.00003	26.93	26.93	26.93
1/20/2012	0.0012	0.0050	0.0050	0.00001	0.00003	0.00003	6.46	26.93	26.93
6/15/2012	0.0015	0.0050	0.0050	0.00001	0.00003	0.00003	8.08	26.93	26.93
9/25/2012	0.0012	0.0050	0.0050	0.00001	0.00003	0.00003	6.46	26.93	26.93

NS = Not sampled

*Italic* = Reported concentrations are estimated values (J-flagged values) or below laboratory detection limits. Concentrations of PCE, TCE, and cis-1,2-DCE are assumed to be one-half the laboratory practical quantitation limit (PQL). Concentrations of vinyl chloride are assumed to be 0.015 ppmv, representing the mean detected concentration below laboratory reporting limits.

**APPENDIX B**  
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**Michigan Meadows Apartments**  
**Indianapolis, Indiana**  
**MUNDELL Project No.: M01046**

Sample Date	Vinyl Chloride								
	B-5	B-6	B-7	B-5	B-6	B-7	B-5	B-6	B-7
	(ppmv)			(ppm)			( $\mu\text{g}/\text{m}^3$ )		
3/27/2008	0.0150	0.0150	NS	0.00004	0.00004	NS	38.42	38.42	NS
3/28/2008	0.0150	0.0150	NS	0.00004	0.00004	NS	38.42	38.42	NS
4/7/2008	NS	NS	0.0150	NS	NS	0.00004	NS	NS	38.42
4/8/2008	NS	NS	0.0150	NS	NS	0.00004	NS	NS	38.42
4/24/2008	0.0150	0.0150	0.0150	0.00004	0.00004	0.00004	38.42	38.42	38.42
5/1/2008	0.0150	0.0150	0.0150	0.00004	0.00004	0.00004	38.42	38.42	38.42
6/2/2008	0.0150	0.0150	0.0150	0.00004	0.00004	0.00004	38.42	38.42	38.42
7/10/2008	0.0150	NS	0.0150	0.00004	NS	0.00004	38.42	NS	38.42
8/20/2008	NS	0.0150	NS	NS	0.00004	NS	NS	38.42	NS
9/12/2008	0.0150	0.0150	0.0150	0.00004	0.00004	0.00004	38.42	38.42	38.42
11/26/2008	0.0150	0.0150	0.0150	0.00004	0.00004	0.00004	38.42	38.42	38.42
3/24/2009	0.0150	0.0150	0.0150	0.00004	0.00004	0.00004	38.42	38.42	38.42
6/15/2009	0.0150	0.0150	0.0150	0.00004	0.00004	0.00004	38.42	38.42	38.42
8/21/2009	0.0150	0.0150	0.0150	0.00004	0.00004	0.00004	38.42	38.42	38.42
11/5/2009	0.0150	0.0150	0.0150	0.00004	0.00004	0.00004	38.42	38.42	38.42
2/5/2010	0.0150	0.0150	0.0150	0.00004	0.00004	0.00004	38.42	38.42	38.42
2/6/2010	0.0150	0.0150	0.0150	0.00004	0.00004	0.00004	38.42	38.42	38.42
4/23/2010	0.0150	NS	0.0150	0.00004	NS	0.00004	38.42	NS	38.42
5/12/2010	NS	0.0150	NS	NS	0.00004	NS	NS	38.42	NS
7/23/2010	0.0150	0.0150	0.0150	0.00004	0.00004	0.00004	38.42	38.42	38.42
10/15/2010	0.0150	0.0150	0.0150	0.00004	0.00004	0.00004	38.42	38.42	38.42
1/21/2011	0.0150	0.0150	0.0150	0.00004	0.00004	0.00004	38.42	38.42	38.42
5/11/2011	0.0150	0.0150	0.0150	0.00004	0.00004	0.00004	38.42	38.42	38.42
7/29/2011	0.0150	0.0150	0.0150	0.00004	0.00004	0.00004	38.42	38.42	38.42
10/25/2011	0.0150	0.0150	0.0150	0.00004	0.00004	0.00004	38.42	38.42	38.42
1/20/2012	0.0150	0.0150	0.0150	0.00004	0.00004	0.00004	38.42	38.42	38.42
6/15/2012	0.3300	0.1400	0.1200	0.00085	0.00036	0.00031	845.13	358.54	307.32
9/25/2012	0.1500	0.1100	0.0150	0.00038	0.00028	0.00004	384.15	281.71	38.42

NS = Not sampled

*Italic* = Reported concentrations are estimated values (J-flagged values) or below laboratory detection limits. Concentrations of PCE, TCE, and cis-1,2-DCE are assumed to be one-half the laboratory practical quantitation limit (PQL). Concentrations of vinyl chloride are assumed to be 0.015 ppmv, representing the mean detected concentration below laboratory reporting limits.

**APPENDIX B**  
**Air Mitigation System - Historical Air Analytical Results**  
**Michigan Meadows Apartments**  
**Indianapolis, Indiana**  
**MUNDELL Project No.: M01046**

Sample Date	<b>cis-1,2-Dichloroethylene</b>								
	B-5	B-6	B-7	B-5	B-6	B-7	B-5	B-6	B-7
	(ppmv)			(ppm)			( $\mu\text{g}/\text{m}^3$ )		
3/27/2008	0.0100	0.0100	NS	0.00004	0.00004	NS	39.73	39.73	NS
3/28/2008	0.0100	0.0100	NS	0.00004	0.00004	NS	39.73	39.73	NS
4/7/2008	NS	NS	0.0100	NS	NS	0.00004	NS	NS	39.73
4/8/2008	NS	NS	0.0100	NS	NS	0.00004	NS	NS	39.73
4/24/2008	0.0100	0.0100	0.0100	0.00004	0.00004	0.00004	39.73	39.73	39.73
5/1/2008	0.0100	0.0100	0.0100	0.00004	0.00004	0.00004	39.73	39.73	39.73
6/2/2008	0.0100	0.0100	0.0100	0.00004	0.00004	0.00004	39.73	39.73	39.73
7/10/2008	0.0100	NS	0.0100	0.00004	NS	0.00004	39.73	NS	39.73
8/20/2008	NS	0.0100	NS	NS	0.00004	NS	NS	39.73	NS
9/12/2008	0.0100	0.0100	0.0100	0.00004	0.00004	0.00004	39.73	39.73	39.73
11/26/2008	0.0100	0.0100	0.0100	0.00004	0.00004	0.00004	39.73	39.73	39.73
3/24/2009	0.0100	0.0100	0.0100	0.00004	0.00004	0.00004	39.73	39.73	39.73
6/15/2009	0.0100	0.0100	0.0100	0.00004	0.00004	0.00004	39.73	39.73	39.73
8/21/2009	0.0100	0.0100	0.0100	0.00004	0.00004	0.00004	39.73	39.73	39.73
11/5/2009	0.0100	0.0100	0.0100	0.00004	0.00004	0.00004	39.73	39.73	39.73
2/5/2010	0.0100	0.0100	0.0100	0.00004	0.00004	0.00004	39.73	39.73	39.73
2/6/2010	0.0100	0.0100	0.0100	0.00004	0.00004	0.00004	39.73	39.73	39.73
4/23/2010	0.0100	NS	0.0100	0.00004	NS	0.00004	39.73	NS	39.73
5/12/2010	NS	0.0100	NS	NS	0.00004	NS	NS	39.73	NS
7/23/2010	0.0100	0.0100	0.0100	0.00004	0.00004	0.00004	39.73	39.73	39.73
10/15/2010	0.0100	0.0100	0.0100	0.00004	0.00004	0.00004	39.73	39.73	39.73
1/21/2011	0.0100	0.0100	0.0100	0.00004	0.00004	0.00004	39.73	39.73	39.73
5/11/2011	0.0100	0.0100	0.0100	0.00004	0.00004	0.00004	39.73	39.73	39.73
7/29/2011	0.0100	0.0100	0.0100	0.00004	0.00004	0.00004	39.73	39.73	39.73
10/25/2011	0.0100	0.0100	0.0100	0.00004	0.00004	0.00004	39.73	39.73	39.73
1/20/2012	0.0100	0.0100	0.0100	0.00004	0.00004	0.00004	39.73	39.73	39.73
6/15/2012	0.0100	0.0100	0.0340	0.00004	0.00004	0.00014	39.73	39.73	135.08
9/25/2012	0.0100	0.0100	0.0100	0.00004	0.00004	0.00004	39.73	39.73	39.73

NS = Not sampled

*Italic* = Reported concentrations are estimated values (J-flagged values) or below laboratory detection limits. Concentrations of PCE, TCE, and cis-1,2-DCE are assumed to be one-half the laboratory practical quantitation limit (PQL). Concentrations of vinyl chloride are assumed to be 0.015 ppmv, representing the mean detected concentration below laboratory reporting limits.

**Lab Data for Air Mitigation System B-1**  
**Third Quarter 2012**  
**9/25/2012**  
**Michigan Plaza**  
**3801-3823 West Michigan Street**  
**Indianapolis, Indiana**  
**MUNDELL Project No.: M01046**

B-1 (Lab Data)													B-1 (PID Readings)									
Sample Date	Hours per Cycle	Average Flow Rate (CFM)	Air Vol. Removed per Cycle (CF)	µg/m³ PCE	Lbs. PCE removed	µg/m³ TCE	Lbs. TCE removed	µg/m³ VC	Lbs. VC removed	µg/m³ cis-1,2-DCE	Lbs. cis-1,2-DCE removed	Lbs. Total Pollutants Removed (µg/m³)	Cumulative PCE lbs Removed	Cumulative Total Pollutant lbs Removed	Sample Date	Hours Per Cycle	Average Flow Rate (CFM)	Air Vol. Removed per Cycle (CF)	PID Reading (ppm VOCs)	µg/m³ VOCs	Lbs. VOCs Removed	Cum Total lbs Removed (Est from PID)
9/21/2006	0.5	73	2,190	4,281	0.00	129	0.00	38	0.00	556	0.00	0.00	0.00	0.00	11/17/2006	672	73	2,943,360	0.1	1,483	0.27	0.27
10/6/2006	360	73	1,576,800	5,980	0.59	65	0.01	38	0.00	119	0.01	0.61	0.59	0.61	12/27/2006	960	73	4,204,800	0.0	1,296	0.34	0.61
10/13/2006	168	73	735,840	4,621	0.21	27	0.00	38	0.00	40	0.00	0.22	0.80	0.83	6/15/2007	4,080	73	17,870,400	0.1	1,483	1.65	2.26
10/20/2006	168	73	735,840	5,913	0.27	27	0.00	38	0.00	40	0.00	0.28	1.07	1.10	10/16/2007	2,952	73	12,929,760	0.1	1,483	1.20	3.46
11/17/2006	672	73	2,943,360	5,505	1.01	27	0.00	38	0.01	40	0.01	1.03	2.08	2.13	12/14/2007	1,416	73	6,202,080	0.1	1,483	0.57	4.03
12/27/2006	960	73	4,204,800	5,029	1.32	27	0.01	38	0.01	95	0.03	1.36	3.40	3.50	6/2/2008	4,104	73	17,975,520	2.2	5,401	6.06	10.09
3/30/2007	2,232	73	9,776,160	3,466	2.11	27	0.02	38	0.02	40	0.02	2.18	5.52	5.67	9/12/2008	2,448	73	10,722,240	0.3	1,856	1.24	11.33
6/15/2007	1,848	73	8,094,240	34	0.02	2,477	1.25	38	0.02	834	0.42	1.71	5.53	7.38	11/26/2008	1,800	73	7,884,000	0.1	1,483	0.73	12.06
10/16/2007	2,952	73	12,929,760	2,650	2.14	27	0.02	38	0.03	40	0.03	2.22	7.67	9.60	8/21/2009	6,432	73	28,172,160	3.8	8,387	14.74	26.80
12/14/2007	1,416	73	6,202,080	3,942	1.52	27	0.01	38	0.01	40	0.02	1.57	9.20	11.17	11/5/2009	1,824	73	7,989,120	2.1	5,215	2.60	29.40
3/27/2008	2,496	73	10,932,480	3,738	2.55	27	0.02	38	0.03	135	0.09	2.69	11.74	13.86	2/5/2010	2,208	73	9,671,040	2.3	5,588	3.37	32.77
6/2/2008	1,608	73	7,043,040	4,893	2.15	27	0.01	38	0.02	40	0.02	2.20	13.89	16.05	5/6/2010	2,160	55	7,128,000	2.2	5,401	2.40	35.17
9/12/2008	2,448	73	10,722,240	3,262	2.18	27	0.02	38	0.03	40	0.03	2.25	16.08	18.30	10/15/2010	3,888	73	17,029,440	2.0	5,028	5.34	40.51
11/26/2008	1,800	73	7,884,000	3,126	1.54	27	0.01	38	0.02	40	0.02	1.59	17.61	19.89	1/21/2011	2,352	55	7,761,600	1.9	4,841	2.34	42.86
3/24/2009	2,832	73	12,404,160	3,058	2.37	27	0.02	38	0.03	40	0.03	2.45	19.98	22.34	5/11/2011	2,640	73	11,563,200	1.9	4,841	3.49	46.35
6/15/2009	1,992	73	8,724,960	2,922	1.59	27	0.01	38	0.02	40	0.02	1.65	21.57	23.99	7/29/2011	1,896	73	8,304,480	1.1	3,349	1.73	48.08
8/21/2009	1,608	73	7,043,040	2,447	1.07	27	0.01	38	0.02	40	0.02	1.12	22.65	25.11	10/25/2011	2,112	55	6,969,600	2.1	5,215	2.27	50.35
11/5/2009	1,824	73	7,989,120	2,243	1.12	27	0.01	38	0.02	40	0.02	1.17	23.76	26.28	1/20/2012	2,088	55	6,890,400	1.7	4,468	1.92	52.27
2/5/2010	2,208	73	9,671,040	1,087	0.66	27	0.02	38	0.02	40	0.02	0.72	24.42	27.00	6/15/2012	3,528	55	11,642,400	2.4	5,774	4.19	56.46
4/23/2010	1,848	55	6,098,400	883	0.34	27	0.01	38	0.01	40	0.02	0.38	24.75	27.37	9/25/2012	2,448	73	10,722,240	2.5	5,961	3.99	60.45
7/23/2010	2,184	55	7,207,200	1,019	0.46	27	0.01	38	0.02	40	0.02	0.51	25.21	27.88	<b>TOTALS:</b>	<b>52,008</b>		<b>214,575,840</b>		<b>60.45</b>		
10/15/2010	2,016	73	8,830,080	639	0.35	27	0.01	38	0.02	40	0.02	0.41	25.57	28.29								
1/21/2011	2,352	55	7,761,600	951	0.46	27	0.01	38	0.02	40	0.02	0.51	26.03	28.80								
5/11/2011	2,640	73	11,563,200	1,495	1.08	27	0.02	38	0.03	40	0.03	1.15	27.10	29.95								
7/29/2011	1,896	73	8,304,480	449	0.23	27	0.01	38	0.02	40	0.02	0.29	27.34	30.24								
10/25/2011	2,112	55	6,969,600	748	0.33	27	0.01	38	0.02	40	0.02	0.37	27.66	30.61								
1/20/2012	2,088	55	6,890,400	680	0.29	27	0.01	512	0.22	40	0.02	0.54	27.95	31.15								
6/15/2012	3,528	55	11,642,400	483	0.35	7	0.01	38	0.03	40	0.03	0.41	28.30	31.57								
9/25/2012	2,448	73	10,722,240	680	0.45	7	0.00	38	0.03	40	0.03	0.51	28.76	32.08								
<b>TOTALS:</b>	<b>52,705</b>		<b>215,604,750</b>		<b>29</b>		<b>2</b>		<b>1</b>		<b>1</b>	<b>32.08</b>										

**Lab Data for Air Mitigation System B-2**  
**Third Quarter 2012**  
**9/25/2012**  
**Michigan Plaza**  
**3801-3823 West Michigan Street**  
**Indianapolis, Indiana**  
**MUNDELL Project No.: M01046**

B-2 (Lab Data)														B-2 (PID Readings)								
Sample Date	Hours per Cycle	Average Flow Rate (CFM)	Air Vol. Removed per Cycle (CF)	µg/m³ PCE	Lbs. PCE removed	µg/m³ TCE	Lbs. TCE removed	µg/m³ VC	Lbs. VC removed	µg/m³ cis-1,2-DCE	Lbs. cis-1,2-DCE removed	Lbs. Total Pollutants Removed	Cumulative PCE lbs Removed	Cumulative Total Pollutant lbs Removed	Sample Date	Hours Per Cycle	Average Flow Rate (CFM)	Air Vol. Removed per Cycle (CF)	PID Reading (ppm VOCs)	µg/m³ VOCs	Lbs. VOCs Removed	Cum Total lbs Removed (Est from PID)
9/21/2006	0.5	37	1,110	5,369	0.00	65	0.00	38	0.00	40	0.00	0.00	0.00	0.00	11/17/2006	672.0	37	1,491,840	0.1	1,483	0.14	0.14
10/6/2006	360	37	799,200	4,553	0.23	27	0.00	38	0.00	40	0.00	0.23	0.23	0.23	12/27/2006	960	37	2,131,200	0.1	1,483	0.20	0.34
10/13/2006	168	37	372,960	2,447	0.06	27	0.00	38	0.00	40	0.00	0.06	0.28	0.29	6/15/2007	4,080	37	9,057,600	0.1	1,483	0.84	1.17
10/20/2006	168	37	372,960	3,738	0.09	27	0.00	38	0.00	40	0.00	0.09	0.37	0.38	10/16/2007	2,952	37	6,553,440	0.1	1,483	0.61	1.78
11/17/2006	672	37	1,491,840	3,194	0.30	27	0.00	38	0.00	40	0.00	0.31	0.67	0.69	12/14/2007	1,416	55	4,672,800	0.1	1,483	0.43	2.21
12/27/2006	960	37	2,131,200	3,194	0.42	27	0.00	38	0.01	40	0.01	0.44	1.09	1.13	6/2/2008	4,104	132	32,503,680	1.5	4,095	8.30	10.51
3/30/2007	2,232	38	5,088,960	1,223	0.39	27	0.01	38	0.01	40	0.01	0.42	1.48	1.55	9/12/2008	2,448	37	5,434,560	0.5	2,229	0.76	11.27
6/15/2007	1,848	42	4,656,960	2,107	0.61	27	0.01	38	0.01	40	0.01	0.64	2.09	2.19	8/21/2009	8,232	55	27,165,600	2.4	5,774	9.79	21.05
10/16/2007	2,952	48	8,501,760	1,631	0.86	27	0.01	38	0.02	40	0.02	0.92	2.96	3.11	11/5/2009	1,824	94	10,287,360	1.6	4,282	2.75	23.80
12/14/2007	1,416	53	4,502,880	2,311	0.65	27	0.01	38	0.01	40	0.01	0.68	3.61	3.79	2/5/2010	2,208	55	7,286,400	0.6	2,416	1.10	24.90
4/1/2008	2,616	50	7,848,000	2,447	1.20	27	0.01	38	0.02	40	0.02	1.25	4.81	5.04	5/6/2010	2,160	37	4,795,200	1.4	3,908	1.17	26.07
6/2/2008	1,488	42	3,705,120	3,806	0.88	27	0.01	38	0.01	40	0.01	0.90	5.68	5.94	10/15/2010	3,888	55	12,830,400	3.2	7,267	5.82	31.89
9/12/2008	2,448	37	5,434,560	3,194	1.08	27	0.01	38	0.01	40	0.01	1.12	6.77	7.06	1/21/2011	2,352	55	7,761,600	1.4	3,908	1.89	33.78
8/21/2009	1,440	37	3,196,800	1,087	0.22	27	0.01	38	0.01	40	0.01	0.24	6.98	7.30	5/11/2011	2,640	37	5,860,800	1.6	4,282	1.57	35.34
11/5/2009	1,824	37	4,049,280	951	0.24	27	0.01	38	0.01	40	0.01	0.27	7.22	7.57	7/29/2011	1,896	37	4,209,120	1.7	4,468	1.2	36.52
2/5/2010	2,208	55	7,286,400	251	0.11	27	0.01	38	0.02	40	0.02	0.16	7.34	7.73	10/25/2011	2,112	37	4,688,640	1.9	4,841	1.4	37.93
5/6/2010	2,160	37	4,795,200	1,019	0.30	27	0.01	38	0.01	40	0.01	0.34	7.64	8.06	1/20/2012	2,088	37	4,635,360	1.5	4,095	1.2	39.12
7/23/2010	1,872	37	4,155,840	1,291	0.33	27	0.01	38	0.01	40	0.01	0.36	7.98	8.43	6/15/2012	3,528	37	7,832,160	2.8	6,521	3.2	42.30
10/15/2010	2,016	55	6,652,800	442	0.18	27	0.01	38	0.02	40	0.02	0.23	8.16	8.65	9/25/2012	2,448	37	5,434,560	2.9	6,707	2.3	44.58
1/21/2011	2,352	55	7,761,600	183	0.09	27	0.01	38	0.02	40	0.02	0.14	8.25	8.79	<b>TOTALS:</b>	<b>52,008</b>		<b>164,632,320</b>		<b>44.58</b>		
5/11/2011	2,640	37	5,860,800	1,835	0.67	27	0.01	38	0.01	40	0.01	0.71	8.92	9.50								
7/29/2011	1,896	37	4,209,120	1,155	0.30	27	0.01	38	0.01	40	0.01	0.33	9.23	9.83								
10/25/2011	2,112	37	4,688,640	816	0.24	27	0.01	38	0.01	40	0.01	0.27	9.16	10.10								
1/20/2012	2,088	37	4,635,360	550	0.16	27	0.01	282	0.08	40	0.01	0.26	9.38	10.36								
6/15/2012	3,528	37	7,832,160	816	0.40	6	0.00	38	0.02	40	0.02	0.44	9.56	10.80								
9/25/2012	2,448	37	5,434,560	1,223	0.41	9	0.00	38	0.01	40	0.01	0.44	9.80	11.25								
<b>TOTALS:</b>	<b>45,913</b>		<b>115,466,070</b>		<b>10.44</b>		<b>0.18</b>		<b>0.35</b>		<b>0.29</b>		<b>11.25</b>									

**Lab Data for Air Mitigation System B-3**  
**Third Quarter 2012**  
**9/25/2012**  
**Michigan Plaza**  
**3801-3823 West Michigan Street**  
**Indianapolis, Indiana**  
**MUNDELL Project No.: M01046**

B-3 (Lab Data)													B-3 (PID Readings)									
Sample Date	Hours per Cycle	Average Flow Rate (CFM)	Air Vol. Removed per Cycle (CF)	µg/m³ PCE	Lbs. PCE removed	µg/m³ TCE	Lbs. TCE removed	µg/m³ VC	Lbs. VC removed	µg/m³ cis-1,2-DCE	Lbs. cis-1,2-DCE removed	Lbs. Total Pollutants Removed	Cumulative PCE lbs Removed	Cumulative Total Pollutant lbs Removed	Sample Date	Hours Per Cycle	Average Flow Rate (CFM)	Air Vol. Removed per Cycle (CF)	PID Reading (ppm VOCs)	µg/m³ VOCs	Lbs. VOCs Removed	Cum Total lbs Removed (Est from PID)
9/21/2006	0.5	132	3,960	4,553	0.00	27	0.00	38	0.00	40	0.00	0.00	0.00	0.00	11/17/2006	672	132	5,322,240	2.0	5,028	1.67	1.67
10/6/2006	360	132	2,851,200	6,592	1.17	27	0.00	38	0.01	40	0.01	1.19	1.17	1.19	12/27/2006	960	132	7,603,200	0.1	1,483	0.70	2.37
10/13/2006	168	132	1,330,560	3,534	0.29	27	0.00	38	0.00	40	0.00	0.30	1.47	1.49	6/15/2007	4,080	132	32,313,600	0.1	1,483	2.99	5.36
10/20/2006	168	132	1,330,560	6,048	0.50	27	0.00	38	0.00	40	0.00	0.51	1.97	2.01	10/16/2007	2,952	132	23,379,840	0.1	1,483	2.16	7.52
11/17/2006	672	132	5,322,240	5,301	1.76	27	0.01	38	0.01	40	0.01	1.79	3.73	3.80	12/14/2007	1,416	132	11,214,720	0.1	1,483	1.04	8.56
12/27/2006	960	132	7,603,200	5,097	2.42	27	0.01	38	0.02	40	0.02	2.47	6.15	6.27	6/2/2008	4,104	55	13,543,200	1.2	3,535	2.99	11.55
3/30/2007	2,232	132	17,677,440	3,874	4.27	27	0.03	38	0.04	40	0.04	4.39	10.42	10.65	9/12/2008	2,448	132	19,388,160	0.5	2,229	2.70	14.24
6/15/2007	1,848	132	14,636,160	1,427	1.30	27	0.02	38	0.04	40	0.04	1.40	11.72	12.05	11/26/2008	1,800	132	14,256,000	0.8	2,789	2.48	16.72
10/16/2007	2,952	132	23,379,840	1,903	2.78	27	0.04	38	0.06	40	0.06	2.93	14.50	14.98	8/21/2009	6,432	132	50,941,440	0.0	1,296	4.12	20.84
12/14/2007	1,416	132	11,214,720	3,534	2.47	27	0.02	38	0.03	40	0.03	2.55	16.97	17.53	11/5/2009	1,824	132	14,446,080	1.8	4,655	4.19	25.04
3/27/2008	2,496	132	19,768,320	3,806	4.69	27	0.03	38	0.05	40	0.05	4.82	21.66	22.35	2/5/2010	2,208	132	17,487,360	1.5	4,095	4.47	29.50
6/2/2008	1,608	55	5,306,400	3,330	1.10	27	0.01	38	0.01	40	0.01	1.14	22.76	23.49	5/6/2010	2,160	132	17,107,200	1.7	4,468	4.77	34.27
9/12/2008	2,448	132	19,388,160	3,602	4.36	27	0.03	38	0.05	40	0.05	4.48	27.12	27.97	10/15/2010	3,888	132	30,792,960	0.1	1,483	2.85	37.12
11/26/2008	1,800	132	14,256,000	2,447	2.18	27	0.02	38	0.03	40	0.04	2.27	29.30	30.24	1/21/2011	2,352	132	18,627,840	1.4	3,908	4.54	41.66
3/24/2009	2,832	132	22,429,440	3,738	5.23	27	0.04	38	0.05	40	0.06	5.38	34.52	35.62	4/8/2011	1,848	132	14,636,160	2.4	5,774	5.27	46.93
6/15/2009	1,992	132	15,776,640	2,854	2.81	27	0.03	38	0.04	40	0.04	2.91	37.33	38.53	5/11/2011	792	132	6,272,640	1.2	3,535	1.38	48.32
8/21/2009	1,608	132	12,735,360	3,194	2.54	27	0.02	38	0.03	40	0.03	2.62	39.87	41.15	7/29/2011	1,896	132	15,016,320	1.3	3,722	3.5	51.80
11/5/2009	1,824	132	14,446,080	2,786	2.51	27	0.02	38	0.03	40	0.04	2.61	42.38	43.75	10/25/2011	2,112	132	16,727,040	1.5	4,095	4.3	56.07
2/5/2010	2,208	132	17,487,360	951.44	1.04	26.93	0.03	38	0.04	40	0.04	1.15	43.42	44.91	1/20/2012	2,088	55	6,890,400	1.4	3,908	1.7	57.75
5/6/2010	2,160	132	17,107,200	1,699	1.81	27	0.03	38	0.04	40	0.04	1.93	45.23	46.83	6/15/2012	3,528	132	27,941,760	1.4	3,908	6.8	64.57
7/23/2010	1,872	132	14,826,240	816	0.75	27	0.02	38	0.04	40	0.04	0.85	45.99	47.68	9/25/2012	2,448	132	19,388,160	1.5	4,095	5.0	69.52
10/15/2010	2,016	132	15,966,720	34	0.03	27	0.03	38	0.04	40	0.04	0.14	46.02	47.82	<b>TOTALS:</b>	<b>52,008</b>	<b>383,296,320</b>		<b>69.52</b>			
1/21/2011	2,352	132	18,627,840	NS	0.00	NS	0.00	NS	0.00	NS	0.00	0.00	46.02	47.82								
4/8/2011	1,848	132	14,636,160	1,427	1.30	27	0.02	38	0.04	199	0.18	1.54	47.32	49.37								
5/11/2011	792	132	6,272,640	1,427	0.56	27	0.01	38	0.02	40	0.02	0.60	47.88	49.97								
7/29/2011	1,896	132	15,016,320	748	0.70	27	0.03	38	0.04	40	0.04	0.80	48.58	50.76								
10/25/2011	2,112	132	16,727,040	360	0.38	27	0.03	38	0.04	40	0.04	0.49	48.96	51.25								
1/20/2012	2,088	55	6,890,400	449	0.19	6	0.00	38	0.02	40	0.02	0.23	49.15	51.48								
6/15/2012	3,528	132	27,941,760	326	0.57	27	0.05	38	0.07	40	0.07	0.75	49.72	52.23								
9/25/2012	2,448	132	19,388,160	598	0.72	10	0.01	359	0.43	40	0.05	1.22	50.44	53.45								
<b>TOTALS:</b>	<b>52,705</b>		<b>400,344,120</b>		<b>50.44</b>		<b>0.61</b>		<b>1.30</b>		<b>1.09</b>	<b>53.45</b>										

**Lab Data for Air Mitigation System B-4**  
**Third Quarter 2012**  
**9/25/2012**  
**Michigan Plaza**  
**3801-3823 West Michigan Street**  
**Indianapolis, Indiana**  
**MUNDELL Project No.: M01046**

B-4 (Lab Data)														B-4 (PID Readings)								
Sample Date	Hours per Cycle	Average Flow Rate (CFM)	Air Vol. Removed per Cycle (CF)	µg/m³ PCE	Lbs. PCE removed	µg/m³ TCE	Lbs. TCE removed	µg/m³ VC	Lbs. VC removed	µg/m³ cis-1,2-DCE	Lbs. cis-1,2-DCE removed	Lbs. Total Pollutants Removed	Cumulative PCE lbs Removed	Cumulative Total Pollutant lbs Removed	Sample Date	Hours Per Cycle	Average Flow Rate (CFM)	Air Vol. Removed per Cycle (CF)	PID Reading (ppm VOCs)	µg/m³ VOCs	Lbs. VOCs Removed	Cum Total lbs Removed (Est from PID)
9/21/2006	0.5	132	3,960	1,903	0.00	27	0.00	38	0.00	40	0.00	0.00	0.00	0.00	11/17/2006	672	132	5,322,240	0.1	1,483	0.49	0.49
10/6/2006	360	132	2,851,200	2,107	0.37	27	0.00	38	0.01	40	0.01	0.39	0.38	0.39	12/27/2006	960	132	7,603,200	0.1	1,483	0.70	1.20
10/13/2006	168	132	1,330,560	1,427	0.12	27	0.00	38	0.00	40	0.00	0.13	0.49	0.52	6/15/2007	4,080	132	32,313,600	0.1	1,483	2.99	4.18
10/20/2006	168	132	1,330,560	1,495	0.12	27	0.00	38	0.00	40	0.00	0.13	0.62	0.65	10/16/2007	2,952	132	23,379,840	0.1	1,483	2.16	6.35
11/17/2006	672	132	5,322,240	1,019	0.34	27	0.01	38	0.01	40	0.01	0.37	0.96	1.03	12/14/2007	1,416	132	11,214,720	0.1	1,483	1.04	7.38
12/27/2006	960	132	7,603,200	748	0.35	27	0.01	38	0.02	40	0.02	0.40	1.31	1.43	3/29/2008	2,544	132	20,148,480	1.8	4,655	5.85	13.23
3/30/2007	2,232	130	17,342,640	211	0.23	27	0.03	38	0.04	40	0.04	0.34	1.54	1.77	6/2/2008	1,560	132	12,355,200	0.3	1,856	1.43	14.66
6/15/2007	1,848	125	13,887,720	3,126	2.71	27	0.02	38	0.03	40	0.03	2.80	4.25	4.57	9/12/2008	2,448	132	19,388,160	0.4	2,042	2.47	17.13
10/16/2007	2,952	128	22,627,080	455	0.64	27	0.04	38	0.05	40	0.06	0.79	4.89	5.36	11/26/2008	1,800	132	14,256,000	0.1	1,483	1.32	18.45
12/14/2007	1,416	132	11,214,720	951	0.67	27	0.02	38	0.03	40	0.03	0.74	5.56	6.10	8/21/2009	6,432	115	44,380,800	0.0	1,296	3.59	22.04
3/27/2008	2,496	128	19,094,400	503	0.60	27	0.03	38	0.05	40	0.05	0.72	6.15	6.83	11/6/2009	1,848	132	14,636,160	0.4	2,042	1.86	23.90
6/2/2008	1,608	119	11,481,120	680	0.49	27	0.02	38	0.03	40	0.03	0.56	6.64	7.39	2/5/2010	2,184	132	17,297,280	0.6	2,416	2.61	26.51
9/12/2008	2,448	132	19,388,160	883	1.07	27	0.03	38	0.05	40	0.05	1.20	7.71	8.58	4/23/2010	1,848	115	12,751,200	0.9	2,975	2.37	28.88
11/26/2008	1,800	132	14,256,000	748	0.66	27	0.02	38	0.03	40	0.04	0.76	8.37	9.34	10/15/2010	4,200	115	28,980,000	0.5	2,229	4.03	32.91
3/24/2009	2,832	132	22,429,440	34	0.05	27	0.04	38	0.05	40	0.06	0.19	8.42	9.54	1/21/2011	2,352	132	18,627,840	0.2	1,669	1.94	34.85
6/15/2009	1,992	132	15,776,640	136	0.13	27	0.03	38	0.04	40	0.04	0.24	8.56	9.77	5/11/2011	2,640	132	20,908,800	0.1	1,483	1.93	36.78
8/21/2009	1,608	132	12,735,360	95	0.08	27	0.02	38	0.03	40	0.03	0.16	8.63	9.93	7/29/2011	1,896	115	13,082,400	0.4	2,042	1.7	38.45
11/5/2009	1,824	132	14,446,080	34	0.03	27	0.02	38	0.03	40	0.04	0.13	8.66	10.06	10/25/2011	2,112	132	16,727,040	0.5	2,229	2.3	40.77
2/5/2010	2,208	132	17,487,360	82	0.09	27	0.03	38	0.04	40	0.04	0.20	8.75	10.26	1/20/2012	2,088	132	16,536,960	0.4	2,042	2.1	42.88
4/23/2010	1,848	115	12,751,200	116	0.09	27	0.02	38	0.03	40	0.03	0.18	8.84	10.44	6/15/2012	3,528	115	24,343,200	0.2	1,669	2.5	45.41
7/23/2010	2,184	115	15,069,600	34	0.03	27	0.03	38	0.04	40	0.04	0.13	8.87	10.57	9/25/2012	2,448	132	19,388,160	0.3	1,856	2.2	47.66
10/13/2010	1,968	115	13,579,200	34	0.03	27	0.02	38	0.03	40	0.03	0.12	8.90	10.69	<b>TOTALS:</b>	<b>52,008</b>	<b>393,641,280</b>		<b>47.66</b>			
1/21/2011	2,400	132	19,008,000	34	0.04	27	0.03	38	0.05	40	0.05	0.16	8.94	10.85								
5/11/2011	2,640	132	20,908,800	156	0.20	27	0.04	38	0.05	40	0.05	0.34	9.15	11.19								
7/29/2011	1,896	115	13,082,400	34	0.03	27	0.02	38	0.03	40	0.03	0.11	9.18	11.31								
10/25/2011	2,112	132	16,727,040	34	0.04	27	0.03	38	0.04	40	0.04	0.15	9.21	11.45								
1/20/2012	2,088	132	16,536,960	55	0.06	27	0.03	38	0.04	40	0.04	0.17	9.27	11.62								
6/15/2012	3,528	115	24,343,200	31	0.05	27	0.04	38	0.06	40	0.06	0.21	9.31	11.82								
9/25/2012	2,448	132	19,388,160	7	0.01	27	0.03	256	0.31	40	0.05	0.40	9.32	12.22								
<b>TOTALS:</b>	<b>52,705</b>		<b>402,003,000</b>		<b>9.32</b>		<b>0.68</b>		<b>1.23</b>		<b>1.00</b>		<b>12.22</b>									

**Lab Data for Air Mitigation System B-5**  
**Third Quarter 2012**  
**9/25/2012**  
**Michigan Plaza**  
**3801-3823 West Michigan Street**  
**Indianapolis, Indiana**  
**MUNDELL Project No.: M01046**

B-5 (Lab Data)														B-5 (PID Readings)									
Sample Date	Hours per Cycle	Average Flow Rate (CFM)	Air Vol. Removed per Cycle (CF)	µg/m³ PCE	Lbs. PCE removed	µg/m³ TCE	Lbs. TCE removed	µg/m³ VC	Lbs. VC removed	µg/m³ cis-1,2-DCE	Lbs. cis-1,2-DCE removed	Lbs. Total Pollutants Removed	Cumulative PCE lbs Removed	Cumulative Total Pollutant lbs Removed	Sample Date	Hours Per Cycle	Average Flow Rate (CFM)	Air Vol. Removed per Cycle (CF)	PID Reading (ppm VOCs)	µg/m³ VOCs	Lbs. VOCs Removed	Cum Total lbs Removed (Est from PID)	
3/27/2008	0.5	130	3,900	883	0.00	27	0.00	38	0.00	40	0.00	0.00	0.00	0.00	3/29/2008	50	110	330,000	0.1	1,483	0.03	0.03	
3/28/2008	24	127	182,880	496	0.01	27	0.00	38	0.00	40	0.00	0.01	0.01	0.01	6/2/2008	1,560	130	12,168,000	0.2	1,669	1.27	1.30	
4/24/2008	648	120	4,665,600	367	0.11	27	0.01	38	0.01	40	0.01	0.14	0.11	0.14	7/10/2008	912	110	6,019,200	0.7	2,602	0.98	2.27	
5/1/2008	168	115	1,159,200	394	0.03	27	0.00	38	0.00	40	0.00	0.04	0.14	0.18	9/12/2008	1,536	130	11,980,800	0.1	1,483	1.11	3.38	
6/2/2008	768	114	5,253,120	401	0.13	27	0.01	38	0.01	40	0.01	0.17	0.27	0.35	11/26/2008	1,800	130	14,040,000	0.1	1,483	1.30	4.68	
7/10/2008	912	115	6,292,800	442	0.17	27	0.01	38	0.02	40	0.02	0.21	0.45	0.56	8/21/2009	6,432	130	50,169,600	0.0	1,296	4.06	8.74	
9/12/2008	1,536	114	10,506,240	469	0.31	27	0.02	38	0.03	40	0.03	0.38	0.75	0.94	11/5/2009	1,824	130	14,227,200	0.2	1,669	1.48	10.22	
11/26/2008	1,800	113	12,204,000	489	0.37	27	0.02	38	0.03	40	0.03	0.45	1.13	1.39	2/5/2010	2,208	110	14,581,440	0.5	1,483	1.35	11.57	
3/24/2009	2,832	122	20,730,240	1,427	1.85	27	0.03	38	0.05	40	0.05	1.98	2.97	3.37	5/6/2010	2,160	110	14,256,000	1.4	3,908	3.48	15.04	
6/15/2009	1,992	122	14,581,440	394	0.36	27	0.02	38	0.03	40	0.04	0.45	3.33	3.83	10/15/2010	3,888	130	30,326,400	0.4	2,042	3.86	18.91	
8/21/2009	1,608	122	11,770,560	428	0.31	27	0.02	38	0.03	40	0.03	0.39	3.64	4.22	1/21/2011	2,352	110	15,523,200	0.4	2,042	1.98	20.88	
11/5/2009	1,824	122	13,351,680	883	0.74	27	0.02	38	0.03	40	0.03	0.82	4.38	5.04	5/11/2011	2,640	130	20,592,000	0.1	1,483	1.90	22.79	
2/5/2010	2,208	110	14,572,800	150	0.14	26.93	0.02	38	0.03	40	0.04	0.23	4.52	5.27	7/29/2011	1,896	110	12,513,600	0.4	2,042	1.6	24.38	
4/23/2010	1,848	110	12,196,800	82	0.06	27	0.02	38	0.03	40	0.03	0.14	4.58	5.41	10/25/2011	2,112	110	13,939,200	0.5	2,229	1.9	26.32	
7/23/2010	2,184	110	14,414,400	183	0.16	27	0.02	38	0.03	40	0.04	0.26	4.74	5.67	1/20/2012	2,088	110	13,780,800	0.4	2,042	1.8	28.08	
10/15/2010	2,016	130	15,724,800	102	0.10	27	0.03	38	0.04	40	0.04	0.20	4.84	5.88	6/15/2012	3,528	130	27,518,400	0.4	2,042	3.5	31.58	
1/21/2011	2,352	110	15,523,200	224	0.22	27	0.03	38	0.04	40	0.04	0.32	5.06	6.19	9/25/2012	2,448	110	16,156,800	0.5	2,229	2.2	33.83	
5/11/2011	2,640	130	20,592,000	394	0.51	27	0.03	38	0.05	40	0.05	0.64	5.57	6.84	<b>TOTALS:</b> <b>39,434</b> <b>277,634,460</b> <b>6.28</b> <b>0.40</b> <b>2.40</b> <b>0.69</b> <b>9.76</b>							<b>288,122,640</b>	<b>33.83</b>
7/29/2011	1,896	110	12,513,600	150	0.12	27	0.02	38	0.03	40	0.03	0.20	5.68	7.03									
10/25/2011	2,112	110	13,939,200	204	0.18	27	0.02	38	0.03	40	0.03	0.27	5.86	7.30									
1/20/2012	2,088	110	13,780,800	150	0.13	6	0.01	38	0.03	40	0.03	0.20	5.99	7.50									
6/15/2012	3,528	130	27,518,400	95	0.16	8	0.01	845	1.45	40	0.07	1.70	6.15	9.20									
9/25/2012	2,448	110	16,156,800	122	0.12	6	0.01	384	0.39	40	0.04	0.56	6.28	9.76									
<b>TOTALS:</b>	<b>39,433</b>		<b>277,634,460</b>		<b>6.28</b>		<b>0.40</b>		<b>2.40</b>		<b>0.69</b>		<b>9.76</b>										

**Lab Data for Air Mitigation System B-6**  
**Third Quarter 2012**  
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**Michigan Plaza**  
**3801-3823 West Michigan Street**  
**Indianapolis, Indiana**  
**MUNDELL Project No.: M01046**

B-6 (Lab Data)														B-6 (PID Readings)								
Sample Date	Hours per Cycle	Average Flow Rate (CFM)	Air Vol. Removed per Cycle (CF)	µg/m³ PCE	Lbs. PCE removed	µg/m³ TCE	Lbs. TCE removed	µg/m³ VC	Lbs. VC removed	µg/m³ cis-1,2-DCE	Lbs. cis-1,2-DCE removed	Lbs. Total Pollutants Removed	Cumulative PCE lbs Removed	Cumulative Total Pollutant lbs Removed	Sample Date	Hours Per Cycle	Average Flow Rate (CFM)	Air Vol. Removed per Cycle (CF)	PID Reading (ppm VOCs)	µg/m³ VOCs	Lbs. VOCs Removed	Cum Total lbs Removed (Est from PID)
3/27/2008	0.5	130	3,900	8,155	0.00	27	0.00	38	0.00	40	0.00	0.00	0.00	0.00	3/29/2008	50	74	222,000	1.7	4,468	0.06	0.06
3/28/2008	24	119	171,144	3,330	0.04	27	0.00	38	0.00	40	0.00	0.04	0.04	0.04	6/2/2008	1,560	130	12,168,000	1.1	3,349	2.54	2.60
4/24/2008	648	114	4,426,488	748	0.21	27	0.01	38	0.01	40	0.01	0.24	0.24	0.27	8/20/2008	1,896	110	12,513,600	0.5	2,229	1.74	4.34
5/1/2008	168	123	1,234,800	1,427	0.11	27	0.00	38	0.00	40	0.00	0.12	0.35	0.39	9/12/2008	552	130	4,305,600	0.1	1,483	0.40	4.74
6/2/2008	768	120	5,506,560	1,495	0.51	27	0.01	38	0.01	40	0.01	0.55	0.87	0.94	11/26/2008	1,800	110	11,880,000	0.2	1,669	1.24	5.98
8/20/2008	1,896	120	13,651,200	1,835	1.56	27	0.02	38	0.03	40	0.03	1.65	2.43	2.59	8/21/2009	6,432	110	42,451,200	0.1	1,483	3.93	9.90
9/12/2008	552	114	3,775,680	1,223	0.29	27	0.01	38	0.01	40	0.01	0.31	2.72	2.91	11/5/2009	1,824	130	14,227,200	0.1	1,483	1.32	11.22
11/26/2008	1,800	112	12,096,000	748	0.56	27	0.02	38	0.03	40	0.03	0.64	3.28	3.55	2/5/2010	2,208	150	19,872,000	0.9	2,975	3.69	14.91
3/24/2009	2,832	118	20,050,560	883	1.10	27	0.03	38	0.05	40	0.05	1.24	4.39	4.79	5/12/2010	2,304	93	12,856,320	1.7	4,468	3.58	18.49
6/15/2009	1,992	118	14,103,360	571	0.50	27	0.02	38	0.03	40	0.03	0.59	4.89	5.38	10/15/2010	3,744	130	29,203,200	0.5	2,229	4.06	22.55
8/21/2009	1,608	118	11,384,640	483	0.34	27	0.02	38	0.03	40	0.03	0.42	5.23	5.80	1/21/2011	2,352	130	18,345,600	0.4	2,042	2.34	24.89
11/5/2009	1,824	118	12,913,920	748	0.60	27	0.02	38	0.03	40	0.03	0.69	5.83	6.49	5/11/2011	2,640	130	20,592,000	0.2	1,669	2.14	27.03
2/5/2010	2,208	150	19,872,000	544	0.67	27	0.03	38	0.05	40	0.05	0.80	6.51	7.29	7/29/2011	1,896	110	12,513,600	0.3	1,856	1.45	28.48
5/12/2010	2,304	93	12,856,320	883	0.71	26.93	0.02	38	0.03	40	0.03	0.79	7.22	8.08	10/25/2011	2,112	110	13,939,200	0.5	2,229	1.94	30.42
7/23/2010	1,728	110	11,404,800	680	0.48	27	0.02	38	0.03	40	0.03	0.56	7.70	8.64	1/20/2012	2,088	130	16,286,400	0.4	2,042	2.07	32.50
10/15/2010	2,016	130	15,724,800	129	0.13	27	0.03	38	0.04	40	0.04	0.23	7.83	8.87	6/15/2012	3,528	130	27,518,400	0.3	1,856	3.19	35.68
1/21/2011	2,352	130	18,345,600	333	0.38	27	0.03	38	0.04	40	0.05	0.50	8.21	9.37	9/25/2012	2,448	110	16,156,800	0.5	2,229	2.25	37.93
5/11/2011	2,640	130	20,592,000	415	0.53	27	0.03	38	0.05	40	0.05	0.67	8.74	10.04	<b>TOTALS:</b>	<b>39,434</b>		<b>285,051,120</b>		<b>37.93</b>		
7/29/2011	1,896	110	12,513,600	143	0.11	27	0.02	38	0.03	40	0.03	0.19	8.85	10.23								
10/25/2011	2,112	110	13,939,200	170	0.15	27	0.02	38	0.03	40	0.03	0.24	8.89	10.47								
1/20/2012	2,088	130	16,286,400	122	0.12	27	0.03	38	0.04	40	0.04	0.23	8.98	10.70								
6/15/2012	3,528	130	27,518,400	75	0.13	27	0.05	359	0.62	40	0.07	0.86	9.02	11.56								
9/25/2012	2,448	110	16,156,800	211	0.21	27	0.03	282	0.28	40	0.04	0.56	9.19	12.12								
<b>TOTALS:</b>	<b>39,433</b>		<b>284,528,172</b>		<b>9.46</b>		<b>0.48</b>		<b>1.48</b>		<b>0.71</b>		<b>12.12</b>									

**Lab Data for Air Mitigation System B-7**  
**Third Quarter 2012**  
**9/25/2012**  
**Michigan Plaza**  
**3801-3823 West Michigan Street**  
**Indianapolis, Indiana**  
**MUNDELL Project No.: M01046**

B-7 (Lab Data)														B-7 (PID Readings)								
Sample Date	Hours per Cycle	Average Flow Rate (CFM)	Air Vol. Removed per Cycle (CF)	µg/m³ PCE	Lbs. PCE removed	µg/m³ TCE	Lbs. TCE removed	µg/m³ VC	Lbs. VC removed	µg/m³ cis-1,2-DCE	Lbs. cis-1,2-DCE removed	Lbs. Total Pollutants Removed	Cumulative PCE lbs Removed	Cumulative Total Pollutant lbs Removed	Sample Date	Hours Per Cycle	Average Flow Rate (CFM)	Air Vol. Removed per Cycle (CF)	PID Reading (ppm VOCs)	µg/m³ VOCs	Lbs. VOCs Removed	Cum Total lbs Removed (Est from PID)
4/7/2008	0.5	118	3,540	516	0.00	27	0.00	38	0.00	40	0.00	0.00	0.00	0.00	6/2/2008	1,344	130	10,483,200	0.3	1,856	1.21	1.21
4/8/2008	24	118	169,920	319	0.00	27	0.00	38	0.00	40	0.00	0.00	0.00	0.00	7/10/2008	912	110	6,019,200	0.5	2,229	0.84	2.05
4/24/2008	384	118	2,718,720	150	0.03	27	0.00	38	0.01	40	0.01	0.04	0.03	0.05	9/12/2008	1,536	130	11,980,800	0.1	1,483	1.11	3.16
5/1/2008	168	120	1,209,600	265	0.02	27	0.00	38	0.00	40	0.00	0.03	0.05	0.08	11/26/2008	1,800	110	11,880,000	0.2	1,669	1.24	4.40
6/2/2008	768	117	5,391,360	360	0.12	27	0.01	38	0.01	40	0.01	0.16	0.17	0.23	8/21/2009	6,432	132	50,941,440	0.1	1,483	4.71	9.11
7/10/2008	912	118	6,456,960	367	0.15	27	0.01	38	0.02	40	0.02	0.19	0.32	0.42	11/5/2009	1,824	130	14,227,200	0.0	1,296	1.15	10.26
9/12/2008	1,536	114	10,506,240	367	0.24	27	0.02	38	0.03	40	0.03	0.31	0.56	0.73	2/5/2010	2,208	110	14,572,800	0.1	1,483	1.35	11.60
11/26/2008	1,800	112	12,096,000	381	0.29	27	0.02	38	0.03	40	0.03	0.37	0.85	1.10	5/6/2010	2,160	130	16,848,000	0.0	1,296	1.36	12.97
3/24/2009	2,832	118	20,050,560	401	0.50	27	0.03	38	0.05	40	0.05	0.63	1.35	1.73	10/15/2010	3,888	130	30,326,400	0.1	1,483	2.80	15.77
6/15/2009	1,992	118	14,103,360	34	0.03	27	0.02	38	0.03	40	0.03	0.12	1.38	1.85	1/21/2011	2,352	130	18,345,600	0.1	1,483	1.70	17.47
8/21/2009	1,608	118	11,384,640	34	0.02	27	0.02	38	0.03	40	0.03	0.10	1.40	1.95	5/11/2011	2,640	130	20,592,000	0.0	1,296	1.66	19.13
11/5/2009	1,824	118	12,913,920	34	0.03	27	0.02	38	0.03	40	0.03	0.11	1.43	2.06	7/29/2011	1,896	130	14,788,800	0.3	1,856	1.71	20.84
2/5/2010	2,208	110	14,572,800	34	0.03	27	0.02	38	0.03	40	0.04	0.13	1.46	2.19	10/25/2011	2,112	130	16,473,600	0.1	1,483	1.52	22.37
4/23/2010	1,848	130	14,414,400	34	0.03	27	0.02	38	0.03	40	0.04	0.13	1.49	2.32	1/20/2012	2,088	130	16,286,400	0.1	1,483	1.51	23.87
7/23/2010	2,184	130	17,035,200	34	0.04	27	0.03	38	0.04	40	0.04	0.15	1.53	2.46	6/15/2012	3,528	130	27,518,400	0.0	1,296	2.22	26.10
10/15/2010	2,016	130	15,724,800	34	0.03	27	0.03	38	0.04	40	0.04	0.14	1.56	2.60	9/2/2012	1,896	130	14,788,800	0.1	1,483	1.37	27.47
1/21/2011	2,352	130	18,345,600	34	0.04	27	0.03	38	0.04	40	0.05	0.16	1.60	2.76	<b>TOTALS:</b>	<b>38,616</b>		<b>296,072,640</b>			<b>27.47</b>	
5/11/2011	2,640	130	20,592,000	34	0.04	27	0.03	38	0.05	40	0.05	0.18	1.64	2.94								
7/29/2011	1,896	130	14,788,800	34	0.03	27	0.02	38	0.04	40	0.04	0.13	1.67	3.07								
10/25/2011	2,112	130	16,473,600	34	0.03	27	0.03	38	0.04	40	0.04	0.14	1.71	3.21								
1/20/2012	2,088	130	16,286,400	20	0.02	27	0.03	38	0.04	40	0.04	0.13	1.73	3.34								
6/15/2012	3,528	130	27,518,400	17	0.03	27	0.05	307	0.53	135	0.23	0.83	1.76	4.17								
9/25/2012	2,448	130	19,094,400	34	0.04	27	0.03	38	0.05	40	0.05	0.17	1.80	4.34								
<b>TOTALS:</b>	<b>39,169</b>		<b>291,851,220</b>		<b>1.80</b>		<b>0.49</b>		<b>1.16</b>		<b>0.89</b>		<b>4.34</b>									

**Michigan Plaza**  
**Third Quarter 2012**  
**9/25/2012**  
**Michigan Plaza**  
**3801-3823 West Michigan Street**  
**Indianapolis, Indiana**  
**MUNDELL Project No.: M01046**

<b>Cumulative Totals (B-1-B-4)</b>				
Sample Date	Lbs PCE Removed	Cumulative PCE lbs Removed	Lbs. Total Pollutants Removed	Cumulative Total Pollutant lbs Removed
9/21/2006	0.00	0.00	0.00	0.00
10/6/2006	2.36	2.36	2.43	2.43
10/13/2006	0.68	3.05	0.71	3.14
10/20/2006	0.98	4.03	1.01	4.14
11/17/2006	3.41	7.44	3.51	7.65
12/27/2006	4.52	11.95	4.67	12.32
3/30/2007	7.00	18.95	7.33	19.65
6/15/2007	4.64	23.59	6.55	26.20
10/16/2007	6.42	30.01	6.86	33.06
12/14/2007	5.31	35.33	5.53	38.59
3/27/2008	7.84	43.17	8.23	46.82
4/1/2008	1.20	44.36	1.25	48.07
6/2/2008	4.62	48.98	4.80	52.87
9/12/2008	8.69	57.67	9.05	61.92
11/26/2008	4.38	62.05	4.62	66.54
3/24/2009	7.64	69.69	8.02	74.55
6/15/2009	4.53	74.23	4.80	79.35
8/21/2009	3.90	78.13	4.14	83.49
11/5/2009	3.90	82.03	4.17	87.66
2/5/2010	1.90	83.93	2.24	89.90
4/23/2010	0.43	84.36	0.55	90.45
7/23/2010	1.58	85.94	1.85	92.30
10/15/2010	0.57	86.50	0.78	93.07
1/21/2011	0.59	87.09	0.82	93.89
4/8/2011	1.30	88.40	1.54	95.43
5/11/2011	2.51	90.91	2.80	98.24
7/29/2011	1.26	92.17	1.53	99.77
10/25/2011	0.97	93.15	1.27	101.04
1/20/2012	0.70	93.85	1.19	102.23
6/15/2012	1.36	95.21	1.81	104.04
9/25/2012	1.60	96.81	2.57	106.61

**Michigan Apartments**  
**Third Quarter 2012**  
**9/25/2012**  
**Michigan Plaza**  
**3801-3823 West Michigan Street**  
**Indianapolis, Indiana**  
**MUNDELL Project No.: M01046**

Cumulative Totals (B-5-B-7)				
Sample Date	Lbs PCE Removed	Cumulative PCE lbs Removed	Lbs. Total Pollutants Removed	Cumulative Total Pollutant lbs Removed
3/27/2008	0.00	0.00	0.00	0.00
3/28/2008	0.04	0.04	0.04	0.05
4/7/2008	0.00	0.04	0.00	0.05
4/8/2008	0.00	0.05	0.00	0.05
4/24/2008	0.34	0.39	0.42	0.47
5/1/2008	0.16	0.54	0.18	0.65
6/2/2008	0.77	1.31	0.87	1.52
7/10/2008	0.32	1.63	0.40	1.93
8/20/2008	1.56	3.19	1.65	3.58
9/12/2008	0.84	4.03	1.00	4.58
11/26/2008	1.22	5.25	1.46	6.04
3/24/2009	3.45	8.71	3.85	9.89
6/15/2009	0.89	9.60	1.17	11.06
8/21/2009	0.68	10.28	0.91	11.97
11/5/2009	1.37	11.64	1.62	13.59
2/5/2010	0.84	12.48	1.16	14.75
4/23/2010	0.09	12.58	0.27	15.02
7/23/2010	0.68	13.26	0.97	15.98
10/15/2010	0.26	13.52	0.57	16.55
1/21/2011	0.64	14.16	0.98	17.53
5/11/2011	1.08	15.24	1.49	19.02
7/29/2011	0.26	15.50	0.52	19.54
10/25/2011	0.36	15.86	0.65	20.19
1/20/2012	0.27	16.13	0.56	20.75
6/15/2012	0.32	16.45	3.39	24.14
9/25/2012	0.38	16.83	1.29	25.42

**Cumulative Total LBS Removed**  
**Third Quarter 2012**  
**9/25/2012**  
**Michigan Plaza**  
**3801-3823 West Michigan Street**  
**Indianapolis, Indiana**  
**MUNDELL Project No.: M01046**

<b>Cumulative Totals (B-1-B-7)</b>				
Sample Date	Lbs PCE Removed	Cumulative PCE lbs Removed	Lbs. Total Pollutants Removed	Cumulative Total Pollutant lbs Removed
9/21/2006	0.00	0.00	0.00	0.00
10/6/2006	2.36	2.36	2.43	2.43
10/13/2006	0.68	3.05	0.71	3.14
10/20/2006	0.98	4.03	1.01	4.14
11/17/2006	3.41	7.44	3.51	7.65
12/27/2006	4.52	11.95	4.67	12.32
3/30/2007	7.00	18.95	7.33	19.65
6/15/2007	4.64	23.59	6.55	26.20
10/16/2007	6.42	30.01	6.86	33.06
12/14/2007	5.31	35.33	5.53	38.59
3/27/2008	7.84	43.17	8.23	46.82
3/28/2008	0.04	43.21	0.04	46.87
4/1/2008	1.20	44.41	1.25	48.12
4/7/2008	0.00	44.41	0.00	48.12
4/8/2008	0.00	44.41	0.00	48.12
4/24/2008	0.34	44.75	0.42	48.54
5/1/2008	0.16	44.91	0.18	48.72
6/2/2008	5.38	50.29	5.67	54.39
7/10/2008	0.32	50.61	0.40	54.80
8/20/2008	1.56	52.18	1.65	56.45
9/12/2008	9.53	61.70	10.05	66.49
11/26/2008	5.60	67.30	6.08	72.57
3/24/2009	11.10	78.40	11.87	84.44
6/15/2009	5.42	83.82	5.97	90.41
8/21/2009	4.59	88.41	5.05	95.46
11/5/2009	5.26	93.67	5.79	101.25
2/5/2010	2.74	96.41	3.40	104.65
4/23/2010	0.52	96.93	0.82	105.47
7/23/2010	2.26	99.20	2.82	108.28
10/15/2010	0.83	100.02	1.34	109.63
1/21/2011	1.23	101.25	1.80	111.42
4/8/2011	1.30	102.55	1.54	112.96
5/11/2011	3.59	106.15	4.29	117.26
7/29/2011	1.52	107.67	2.05	119.31
10/25/2011	1.33	109.01	1.92	121.23
1/20/2012	0.97	109.98	1.75	122.98
6/15/2012	1.69	111.67	5.20	128.18
9/25/2012	1.98	113.64	3.86	132.04

## **APPENDIX C**

Cumulative Low Flow Sampling Data

**Appendix C**  
 Low Flow Data  
 3rd Quarter 2012  
 Michigan Plaza  
 3801-3823 West Michigan Street  
 Indianapolis, Indiana  
 MUNDELL Project No.: M01046

Well ID	Date	pH	Conductivity	Temperature (°F)	Dissolved Oxygen (ug/L)	Oxygen Reduction Potential (mV)
MMW-1S	8/2/2012	6.73	1084	65.15	113	9
MMW-4D	7/31/2012	7.06	1530	60.93	181	-90
MMW-6D	7/31/2012	7.32	767.3	62.18	153	-136
MMW-8S	8/2/2012	6.97	1099	64.98	74	-97
MMW-9S	8/2/2012	6.58	1448	64.02	38	-129
MMW-10S	8/2/2012	6.65	1765	66.48	76	-95
MMW-11S	7/31/2012	7.03	992	62.20	92	232
MMW-11D	7/31/2012	7.00	1140	63.39	112	23
MMW-12S	7/31/2012	6.53	1060	64.24	610	142
MMW-13D	7/31/2012	7.27	942.2	66.37	136	-112
MMW-14D	7/31/2012	6.74	851.8	63.92	536	-41
MMW-15S	8/6/2012	7.02	878.8	64.66	167	119
MMW-15D	8/6/2012	7.39	702	63.79	59	-135
MMW-P-01	8/2/2012	6.74	1901	67.67	56	-90
MMW-P-02	8/1/2012	6.80	1415	64.66	-74	-74
MMW-P-03S	8/1/2012	6.87	1151	70.74	79	-133
MMW-P-03D	8/1/2012	6.82	1415	68.47	35	-159
MMW-P-04	Insufficient Water Level to Purge - No Sample Collected					
MMW-P-05	8/2/2012	7.21	466.5	63.25	68	-124
MMW-P-06	8/2/2012	6.85	1283	69.05	74	-96
MMW-P-07	8/2/2012	6.71	1747	70.72	84	-96
MMW-P-08	8/2/2012	6.69	1623	66.28	19	-111
MMW-P-09S	8/1/2012	6.94	866.6	66.39	537	88
MMW-P-09D	8/1/2012	7.16	920.5	62.67	318	-95
MMW-P-10S	8/2/2012	6.69	1721	65.84	50	-115
MMW-P-10D	8/2/2012	6.83	1123	64.75	26	-109
MMW-P-11S	8/7/2012	7.00	777	64.18	31	-61
MMW-P-11DR	8/7/2012	6.98	1401	62.88	28	-81
MMW-P-12S	8/7/2012	7.01	1058	63.97	59	-102
MMW-P-12D	8/7/2012	7.05	1320	64.17	30	-118
MMW-P-13S	8/7/2012	8.78	1109	64.03	619	280
MMW-P-13D	8/7/2012	8.99	998	60.42	9	-102
MMW-P-14S	8/7/2012	6.92	1172	64.27	364	221
MMW-P-14D	8/7/2012	7.10	1080	61.93	21	-75
MW-167S	Insufficient Water Level to Purge - No Sample Collected					
MW-167D	8/3/2012	7.11	994.2	71.15	147	-88
MW-168D	8/3/2012	6.87	1243	67.51	35	-92
MW-170S	8/3/2012	6.89	1554	62.22	379	300
MW-170D	8/3/2012	7.04	1690	66.60	68	-82
MMW-C-01	8/1/2012	6.97	828.6	65.29	190	-96
MMW-C-02S	8/1/2012	6.94	657.5	60.91	207	-8
MMW-C-02D	8/8/2012	8.03	918	63.08	40	-139
MMW-C-16S	8/6/2012	6.69	1141	66.10	108	4
MMW-C-16D	8/6/2012	6.96	1241	64.63	42	-101
MMW-C-17D	8/6/2012	7.15	910	64.48	78	-114

ug/L - micrograms per liter

mV - millivolts